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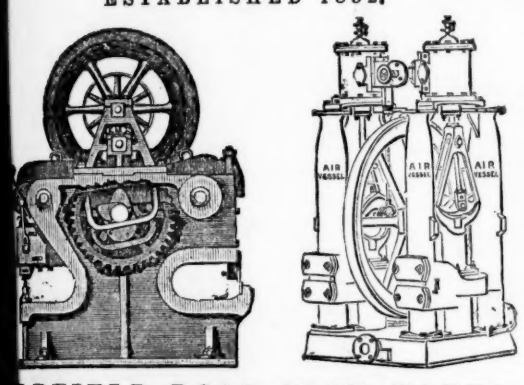

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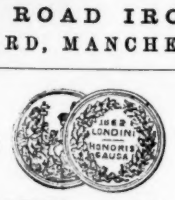

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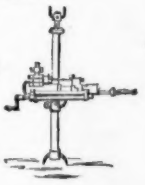

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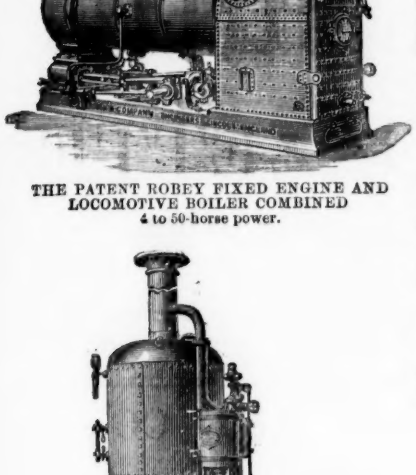

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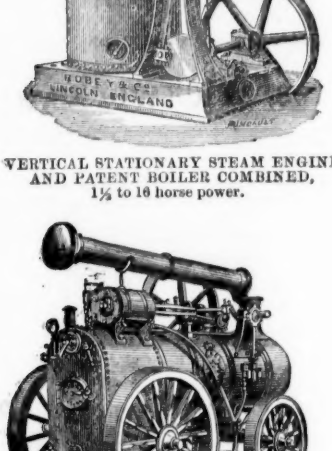

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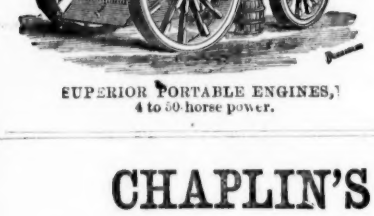

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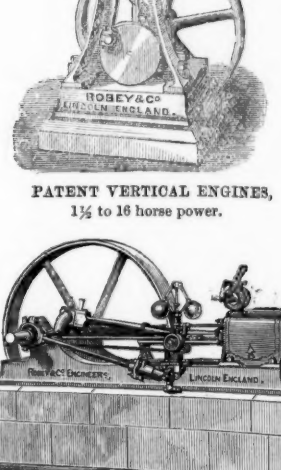

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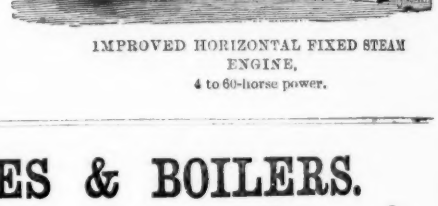

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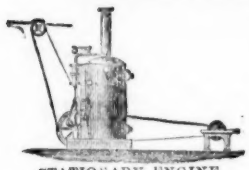

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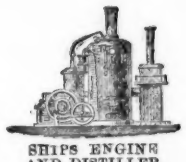

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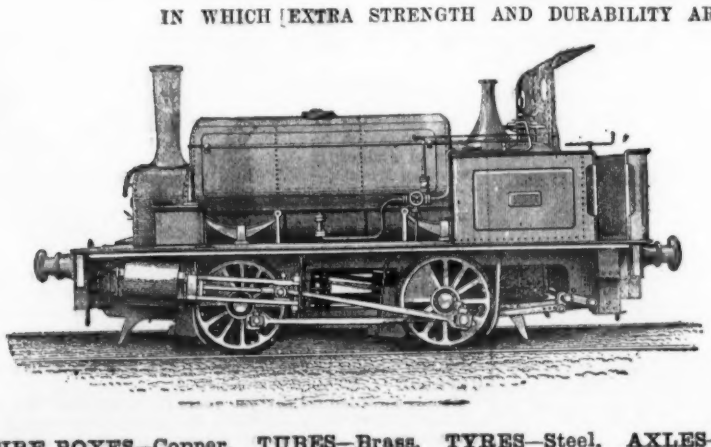

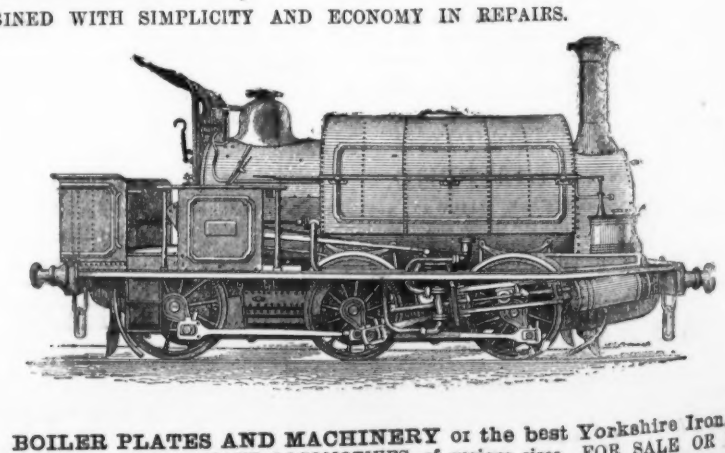

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PRICES AND SPECIFICATIONS ON APPLICATION.

Original Correspondence.

TIN MINING IN LARUT—No. IV.

BY P. DOYLE, C.E., F.S.S., M.R.A.S.

(Formerly of the Kurhurbaliee Collieries, East Indian Railway, Bengal.)

The great waste of power is, no doubt, due to the very great friction necessitated by the construction of the machine. The advantages claimed are—1, original cost, which is about $250; and, 2, attendance requiring only two men (one day, one night), at $8 per mensem, to look after and regulate it; but, on the other hand, the wear and tear of machinery is very great—the frequent renewals and repairs costing fully $150 per annum.

The Chinese furnace in Larut for smelting the tin ore (which, as mentioned, is in the form of black sand) is open, and made of brick, lined with a luting of clay. In shape it is more inclined to the cylindrical than funnel form. It is generally 5 or 6 ft. high, and 3 or 4 ft. in diameter. The tuyure is made from peculiar clay, and it is generally imported from Palembang, Sumatra. It is placed about 2 ft. from the bottom of the nozzle, inclining towards the bottom of the furnace, at an angle of 45°, which position and direction appear to answer well. The furnace after every cooling down receives new lining and a new tuyere—no tuyere lasting more than a night. The smelting operations are carried on all the year round, but only during the night—a custom which appears to have been introduced from the adjoining countries, where the difference of temperature is very great, being fully 20° between the day and night. There is a vent-hole in the bottom of the furnace, always kept open during the operation of smelting by a long sapling, to prevent it from being choked up with slag, to admit of the molten tin running into a well, from which it is ladled and poured into the moulds.*

The cold blast is used by the aid of a bellows, formed from the trunk of a large tree, hollowed out, and fitted with a piston. The air is discharged from both ends down a separate channel running outside and along the cylinder into the centre, whence it is led to the furnace. The wooden cylinder is placed horizontally behind the furnace, and the average is 14 in. diameter and 12 ft. stroke, having in each end cover a 4 in. square clack-valve, which admits air, and closes on the return stroke of the piston. The piston is also of wood, with paper or feather packing; the piston-rod and stuffing-box are also of the same material. The motive-power is three coolies, grasping the wooden cross-head on the piston-rod, and walking rapidly towards and from the cylinder (two full blows and two quarter blows at a time). These men are relieved every hour.

Charcoal from the neighbouring jungle is used, but nothing in the shape of a flux is considered necessary. After the furnace is filled with charcoal and the requisite heat obtained a shovel-full of ore is sprinkled upon the top of the fire, then a basket of charcoal is laid upon that, and so on alternately layers of ore and charcoal.

In this manner of smelting there is great loss, both from the finer ore being blown away and from the partial oxidation of the tin. There is great room for improvement here, but all efforts to introduce a better mode of reducing the ore is looked upon with suspicion and distrust. These open furnaces consume much charcoal, and at the present rate of consumption a diminution in the supply of this article must ensue; and, with the recognised affinity between rainfall and forest, the anticipations of this becoming a considerable cause for perplexity in the future are not entirely unfounded.

It is almost unnecessary to add anything further to what has been already said on the superstitious practices of the Chinese miners; but they form an integral part of every smelting operation, more particularly on the first smelting of the ore from a newly-opened mine, which is an occasion for great feastings and sacrifices.

The cost of smelting is comparatively great, and differs according as the ore is either smelted by mine-owners in their own furnaces at the Kongsee houses, or by the storekeepers in the smelting-houses in the townships being in favour of the latter, as the necessaries for smelting form a part of their stock-in-trade, and, consequently, cost them much less than they would the miners, who are their customers.

It is very difficult to obtain satisfactory information regarding the percentage of tin obtained from the ore—32 peculs of tin sand smelted by the Topai Kongsees at the same cost ($46 22 c.) only yielded 18·56 peculs of metallic tin. Further, the Chinese are very indifferent to these sort of calculations, and, from the process not being continuous and carefully conducted, no certain results can be obtained.

A mean deduced from a large number of statements—all ranging between 58 and 62—gives 60·7 as the average percentage of metal obtained from the ore. It is stated that specimens of clean tin ore from the Malayan Peninsula, sent to England, yielded from 75 to 82 per cent. of the metal; but this was, doubtless, by a process with which the rude native methods could never hold comparison. In the report from the British Consulate at Batavia anent the tin mines of Banca it is mentioned that the greatest paat of the stream tin ore, when properly washed, contains from 75 to 76 per cent. of tin, out of which 73 per cent. is secured by smelting, and sometimes qualities of ore are found which only contain 60 per cent., or even less. In the year 1860 Cornwall and Devon produced 10,500 tons of ore, which yielded 6700 tons of tin, equivalent to 63·62 per cent., and in the year 1874 the United Kingdom produced 14,039 tons of tin ore, which yielded 9942 tons of metal, equivalent to 70·82 per cent. These facts and figures go to support what has been already said regarding the richness of the deposits of tin ore in Larut.

There can only be very inconsiderable difference, if any, in the ore from the different parts of the Malayan tin field, and any difference in the quality of the metal can only be chiefly derived from the greater or less care with which the process of smelting is conducted. A great deal, if not all, of the Larut tin is resmelted in Penang, which is the only port to which it is exported.

The greater demand or higher selling price in the market of Banca tin (sometimes a dollar a pecul more than Malayan tin) can only be attributed to the fact that it contains less foreign impurities, due, no doubt, to the operations of tin producing in Banca having been carried on for a long time on a large scale and under European supervision. As according to Makins all English commercial tin retains small traces of impurity, amounting in the finest kinds to about ·3 per cent., the following analysis of Siak (Sumata) slab tin, by Mr. Backer Overbeck, a Dutch chemist, will create some surprise:—Tin, 99 966; iron, 0·004 = 100; and sulphur in quantity too small for weighing.

The exports of tin from the Straits settlements in 1877 was 195,483 peculs, of which 53,639 peculs were from Singapore, and 141,844 peculs from Penang, there being hardly any ever shipped direct for export from Malacca. Penang receives all the Larut tin, and its imports for the same year showed 157,431 peculs, of which 40,725 were from the Malay and 116,706 from the Siamese States. The exports of tin from Larut to Penang were 39,996 peculs, and if the higher weight of the Larut pecul be considered the conclusion is that all the tin imported into Penang from the Native States of the Peninsula comes entirely from Larut.

The following analysis of the exports of tin from Penang will best show more than anything else the market in which there is a great and increasing demand for Malayan tin:—

India	Peculs	28,648
China		48.113
United Kingdom		39,218
Singapore, for transhipment to all three	...	25,865
Total		141,844

The following is a statement of the exports of tin—being the produce of the mines—from Larut during a period of nearly five years, showing the amount of duty levied:—

Years.	Periods. Months.	Quantity. Peculs.	Duty. Dollars.
1874 ...	Feb. to Dec.	11,035 ...	70,227*
1875 ...	Jan. to Dec.	29.599 ...	158,171
1876 ...	Jan. to Dec.	30,576 ...	133,221
1877 ...	Jan. to Dec.	39 996 ...	140,292
1878 ...	Jan. to June	19,738 ...	71,691*

* From the commencement of British Administration.

* The ingots or slabs being cast in a peculiar form, made up of a rectangular block, 14 in. by 6 in. by 2 in., attached to the flat face of a semi-cylinder, 10 in. long and 4 in. diameter, and weighing from 50 to 60 catties each.

* The produce of the other half-year has been estimated at 25,000 peculs.

It will be perceived that the exports of tin contribute largely to the revenue of the State. The highest tax levied on tin was $19 per bhara, including royalty and export duty. It has been successively reduced to $15, $12, and now stands at $10—with what beneficial effect on the development of the industry the above figures clearly prove. A tax of nearly one-third the value of the article was more than enough to cripple, and even destroy, any staple, and it speaks favourably of the remunerative value of the mines that it survived the impost.

The average production of the Government tin mines in the Island of Banca during the 10 years ending 1876 has been 68,607 peculs, the amount of labour used being 7000 Chinamen, or 9·8 peculs = 3·27 or 3½ bharas* per man per year, which is a very high result—for in the Larut mines the same number of men (according to a previous statement) only produced 40,000 peculs, or 5·7 peculs = 1·9 or 2 bharas per man per year. The Chinese mine undertakers estimated their produce at 2 catties per man per working day, or 7 peculs = 2⅓ bharas per year. The Larut system of labour is free, and that of Banca enforced, and, if anything, the difference should be in favour of the former. If Mr. Paul's estimate of the mining population of Larut—5202—be accepted as correct, and there are no reasons for believing it otherwise, the result is a nearer approach (and possibly to the truth) to that of Banca, being 7·7 peculs = 2·6, or a little over 2½ charas per man per year. But statistics of this description are very intricate, and it serve no useful purpose to generalise from inadequate data.

The following may be taken as very fair limits of the range of the cost of production in Larut, which has been extracted and deduced from previous paragraphs:—

Particulars.		Minimum.		Maximum.
Tin sand extracted ...	Peculs	32	...	32
Getting and washing, above, 800 to 1000 coolies, at 25c. ...		$200·00	...	$250 00
Smelting the same in township or Kongsee		40 91	...	46·22
Total cost		$240·91	...	$296·22
Resulting metal... ...	Peculs	19·52	...	19·20
Price per pecul ...		$ 12·32	...	$ 15·43

The mean of the above results of the cost of producing a pecul of Larut tin—$13 88 c.—agrees very nearly with the ruling rate in the local (Larut) market, which is $40 90 c. per bhara, or $13 67 c. per pecul. It may be well to mention that there is much more of the cheap tin produced than the costly, the latter being only obtained from the scrapings of the pit and rewashings of the sluice. Further, the last are only the figures on the advancer's books—very little of the money leaving his hands, most of the payments being made in kind, where he amply pays himself. The advancer, in turn, makes over the tin at this price, *plus* the necessary attendant charges, to his agent at Penang, from whom he draws his supplies (it is said at prime cost), and by the time the latter receives it into his warehouse it costs him fully $53 40 c. per chara, or $17 80 c. per pecul, detailed as follows:

Larut value	$40 90 c.
Larut duty	10 00 c.
Transport and shipping...	2 50 c.

Total cost, $53 40 c. per chara = $17 80 c. per pecul.

This is somewhat below the average of the Penang market rates, which is $18 10 c. per pecul. The difference would go to defray resmelting and other trading charges—the agent solely relying for profit on the advantage of 1-11th, or 9 per cent. *ad valorem*, in the difference resulting from purchasing at Larut and disposing at Penang weight.

The following are deductions of the average cost of production in Larut:—Working and extracting 1 pecul of tin sand, $7 03 c.; smelting 1 piece of metallic tin (from 1·64 tin sand), $4 98 c.; 1 man works and extracts 3½ catties of tin sand per working day, or, more correctly, 1225 catties per year of 350 working days = 747 catties of metallic tin = 2·49, or 2½ bharas.

Tin sand is purchased from the natives on the opposite (Sumatra) coast for 20 fl. a pecul, which reduced to Larut weight and currency is $7 27 c. per pecul. The total cost of production in the Government mines of Banca, including working and extracting and smelting, only comes to this amount—20 fl., or $7 27 c. per pecul of metallic tin—the cost of smelting being so low as 2 50 fl., or about $1 a pecul, showing what can be effected with improved methods of working under the guidance of Europeans.

There is also a large quantity of tin produced in the other districts of Perak, averaging 1000 peculs per mensem. The tin sand from Batang, Padang, and Gopeng has been recently pronounced by a gentleman qualified to give an opinion to contain a large quantity of gold; the fact, however, of the Malayan tin sand being more or less auriferous has been for a long time pretty generally known.

The country is an El Dorado of mineral wealth, and in the foregoing paragraphs an attempt has been made, by describing the native method of working and its results, to afford information and data, which while attracting the attention of capitalists will give them opportunities for determining how undertakings might be effected and the probable returns which may be expected on investments made in a locality which in this respect has never met with the publicity it deserves.

* The reader should note that foreign weight is always a twelfth less than Larut unless otherwise mentioned.

THE GREAT NORTHERN RAILWAY.

SIR,—In your last issue I stated the landowner with mineral deposit in the vicinity of the Great Northern is enabled, from the simple fact of cheap transport—under ¾d. per ton per mile—for coal to London, to effect an advantageous sale or lease of his property, whilst his neighbour, the surface landowner, bereft of any such geological boon, unable to compete with the United States, Russia, &c., in the growth of cereals, and compelled to endeavour to dispose of his land by parcelling it out into building sites, is prevented realising his only resource through the overt contravention of the Traffic Act by the Great Northern exacting the illegal payment of 1s. 3d. a ton for passengers, forty times as much as is paid by his neighbour aforesaid. Let us see if the Great Northern can adduce any tangible basis for such arbitrary untenable illegal proceeding, as if a ton of passengers were more ponderous and weighted with heavier charges than a ton of coal. I am in a position to prove to the satisfaction of any committee of investigation, to the Railway Commissioners, and to both Houses of Parliament, that the contrary is the fact. The chief and by far the most important items of working expenses are composed of traffic, locomotive and maintenance of way and works expenses, the next of minor import rolling stock expenses, except engines, &c., and the comparatively nominal items of rates and taxes, Government duty, compensation, legal and parliamentary expenses, and miscellaneous charges. As to maintenance of way, it has been shown in my last week's letter that the Great Northern up line to London has been renewed, owing to the heavy coal traffic and its insensate speed, five or six times, whilst the down line, over which the empty wagons simultaneously with the passenger traffic travel, has remained intact for many years, so there can be no doubt as to this charge. Locomotive charges: It is well known that the coal traffic entails much greater outlay than passenger traffic. The coal wagons have to be returned empty, whilst the passenger coaches do not entail this expense. Traffic expenses fall much more on coal and goods than on passenger traffic. Having disposed of the really important elements of traffic expenses, of which I am prevented, through a desire not to encroach upon your valuable space, giving a full analysis, reserving to myself the faculty of doing so when later I come to treat of the awful state of the Great Northern Railway management. I shall content myself with stating that the minor items of general charges, Government duty, rates and taxes, compensation, law and parliamentary expenses, and miscellaneous, do not comparatively materially affect the present case; at all events, their prolix treatment would debar me from developing the subject more immediately on hand. Before I have done with the Great Northern I shall trace their history and doings throughout, only known to the initiated, and they may with fear and trembling await the verdict. The position of the less favoured classes of our social system in respect of dwellings is no longer endurable, increasing to an appalling extent sickness and mortality.

Under the existing system the workman, unable to find employment, for instance, in the North of England, is prevented by the illegal exaction of forty times higher fare than the Great Northern is entited to take is doomed to the greatest possible suffering with his wife and family. Far different is the lot of the German workman, who travels for little more than one-third of the lowest class fares on the Great Northern. The working-classes will have to be prepared to send men to Parliament—independent of party—capable and determined to put an end to existing railway illegal proceedings. The landowners, shipowners, and building societies are deeply interested in the success of this movement. The coalowners from Yorkshire have water carriage all the way to London, at a saving of 5s. a ton over rail and attendant expenses.

WILLIAM JOSEPH THOMPSON.

6, *Fitzwilliam-road, Clapham, Nov.* 11.

THE CONSUMPTION OF FUEL IN MINING ENGINES.

SIR,—Opinions differ widely as to the kind of engine most suitable for mining purposes, both for winding and pumping, if we are to form our judgment from the great variety of engines that have been constructed and are in operation in this country. They are chosen either for simplicity of construction or adaptation to circumstances, from convenience of erection, from their economic use of fuel, or from strength of parts and permanency of work. In mining districts such as Cornwall, where engine fuel is expensive compared to the colliery districts, much attention has been given to the subject of economy of fuel, more so than at the present day, as will be seen from the following abstract, from 1812 to 1872, of the reported duty of Cornish pumping engines:—

Year.	No. engines reported.	Millions of ft. lbs. per 112 lbs. of coal—average.	Cons. of coal per H.-P. effective per hour. Average lbs.
1812	21	22·9	9·68
1822	52	34·4	6·45
1832	59	53·6	4·14
1842	45	64·1	3·46
1852	17	59·2	3·75
1862	31	51·6	4·30
1872	20	51·4	4·31

The highest duty reported was in 1843, the average being 67,000,000, and the highest for a single engine was 127·9 millions in the year 1842. Since that time the duty as reported has been on the decrease, and the consumption of coal per horse-power has increased. The highest duty in one engine in 1853 was 74,000,000, and the consumption per horse-power 2·97 lbs. In 1872 the highest duty of one engine was 76·5, and the lowest consumption of coal per horse-power 2·90. lbs. Much depends on the quality of the fuel, and the kind of boiler used in making these comparative statements of duty at various periods; it is generally said the quality of mining coal sent from South Wales is not now equal to what it was in former years; and there will, no doubt, be considerable difference in the quality of coal sent over even at the present time, greatly helping to make one engine superior to another in duty, and in economic consumption of fuel. Most Cornish engines are of the condensing class, and it is to this class that we generally look for economy and high rate of duty.

With the best Welsh coal 10½ or 11 lbs. of water can be evaporated by 1 lb. of coal in a Cornish boiler from 212°, and under 15 lbs. pressure of steam; assuming the above coal to be better by 30 per cent. than the mining coal in ordinary use in Cornwall, the evaporative power of the inferior coal would be 7½ to 8 lbs. per pound of coal. The consumption of 3 lbs. of best Welsh coal would be equivalent to 4 lbs. of the ordinary mining coal. Experiments were made many years ago for the Admiralty, which showed that in the Cornish boiler the evaporative power of Powell's Duffryn coal was 10¼ lbs. of water from 212°, by 1 lb. of coal, with Ebbw Vale coal 10·2 lbs., and with Warlich's fuel 10·36 lbs. The best winding-engines in Cornwall, which are on the high-pressure and condensing principle, are stated to use not more than 4½ lbs. of ordinary mining coal per indicated horse-power per hour. A compound horizontal condensing engine, lately erected for driving pneumatic stamps at Carn Galver Tin Mine, uses 3 lbs. of ordinary mining coal per indicated horse per hour; the cylinders being 9 and 17 in. diameter, 15-in. stroke, making 150 revolution a minute, with 70 lbs. initial steam pressure. This is the form of engine for winding purposes in which economy of fuel is to be looked for, and from which mineowners would derive a benefit, even though the first cost were greater than the ordinary beam engine.

The semi-portable high pressure engine, with multibular boiler, though differing widely from the Cornish type of engine and boiler, has become to be much adopted for winding purposes. It was no doubt first introduced as a temporary engine for winding from sinking pits, but it has become established as a permanency at many mines of moderate depth. It has also the advantages of occupying little space, of being quickly erected, and of being worked with great economy of fuel.

The objection to it as a permanent engine was its want of stability in drawing heavy loads when the cylinders are placed on the top of the boiler, and the gearing and drums are considerably elevated, but if this does exist it may be overcome by placing the cylinders under the boiler, the gearing and drums being correspondingly low; this arrangement, by means of a crank at the end of the drum shaft, admits of the engine being used also for pumping water from pits, either in sinking or permanently. The semi-portable engine is erected on a massive cast-iron bed-plate. The levers for working the engine and drums are near together at the fire-box. The draught in the boiler fire is caused artificially by a blast-pipe and the exhaust steam, so that inferior fuel can be utilised if such is required.

Trials of portable engines were made at Cardiff in 1872, with reference to their evaporative duty and economy of fuel. The good results obtained in these engines were, no doubt, due to their careful construction and to great attention in firing. Coal was thrown on the fire every two or three minutes, the door opened and shut with great rapidity, so as to get the full effect of the fuel. The average of 11 engines tried was 9 85 lbs. from 212°, or 8·53 lbs. from 62°; the average was reduced by one bad engine. The maximum evaporative duty obtained was 11·83 lbs. of water per lb. of coal from 212°, or 10·24 lbs. from 62° Fahr. The average rate of combustion in the trials was 17½ lbs. of coal per square foot of fire-grate per hour. The maximum was 31 lbs. in one engine, its evaporate duty being 9·27 lbs. of water from 212°, or 8 lbs. from 62°. The engine which gave the best result in evaporative duty used 12 8 lbs. of coal per square foot of grate per hour; another engine that consumed 20·4 lbs. of coal per hour evaporated 10½ lbs. of water from 212°, or 9·08 from 62°. The rate of combustion in these boilers per square foot of fire-grate per hour does not seem to coincide with their evaporative duty. The Llangennech coal was used for the trials under a steam pressure of 80 lbs. per square inch. The temperature of the gases in the chimneys of the engines was carefully noted, and ranged from 320° to 548°; two of them were higher. It is important that there should be sufficient boiler surface to absorb the heat developed from the fuel.

The Llangennech coal, which was used, is found to be capable theoretically of evaporating 15·24 lbs. of water from 212° under atmospheric pressure by the combustion of 1 lb. of coal, but the highest result obtained in the trials was 11·83 lbs., or 77 per cent. By referring to the theoretical evaporative power of any fuel, the percentage of useful effect obtained from it in practice may be ascertained without using such terms as best Welsh, or best North Country coal, which convey no definite meaning. The difference between the indicated and effective horse power of the engines was carefully tested in these trials as showing the engine friction absorbed. It was found that on an average 82½ per cent. of indicated

power was effective on the break, giving 17½ per cent. as the frictional loss on the engines.

In general practice we see adopted the high-pressure non-condensing engine, the high-pressure condensing engine, and the low-pressure condensing engine; also the Cornish, the Lancashire, and the multitubular boiler, the latter usually combined with an engine. Whichever form of engine or boiler is adopted should have the advantages of economy in consumption of fuel, safety in working, and be of a permanent character where the mine is likely to be of long duration.—*Nov.* 12. M. E.

PATENT ECLIPSE ROCK DRILL.

SIR,—We have again to ask you to insert a reply to a question asked this time in last week's Journal by Mr. E. Edwards in reference to the valve and valve arrangements of our Patent Eclipse Rock-Drill. If that gentleman will take the trouble to obtain the Blue Book, and carefully study the specification in conjunction with the drawings supplied therewith, he will see that the valve of the drill in question is totally unlike that referred to in his specification, No. 3342, of September 30, 1874, or any other valve and valve arrangement ever yet offered to the public. This has been fully proved beyond all doubt at the Paris Exhibition and other places by the most scientific men of the day. We beg to inform Mr. Edwards and all others whom it may concern that we have not borrowed any ideas from him or them, nor have we copied the valve arrangement from any other machine, and should any attempt be made to infringe our patent in any way we should at once prosecute the person or persons so attempting with the utmost rigour of the law. In conclusion, we desire to inform your readers generally that we are perfectly satisfied with our drill as it is, and have no intention of altering it in any way, seeing it is giving our customers the highest satisfaction.—*London, Nov.* 14. HATHORN AND CO.

THE ELECTRIC LIGHT.

SIR,—In an article in last week's Journal reference is made to Dr. Hawksley's opinion "that the electric light can be so multiplied by reflectors as to brilliantly light the working places of mines." I should like to ask Dr. Hawksley, if he has been down a pit, how he would reflect any light through the doors, brattice cloths, and other similar arrangements for ventilating the pit; or whether he has ever tried to reflect the light of the sun down a pit-shaft, and how far he has been able to carry it into the workings.

That electricity will be largely used as a means of lighting the surface, main roads, stables, and other portions of a colliery where a fixed light can be maintained will eventually come largely into use there can be no doubt; but in working places there is as yet nothing known that will supplant the utility of the safety-lamp. Again, an electric spark will as readily ignite explosive gas in a mine as a naked light, unless it is closed from the outward atmosphere.

The Protector safety-lamp, now so largely introduced, gives a brilliant light compared to the old system, and cannot be tampered with so as to expose a light, and, what is of more importance, one type of this lamp prevents the continuation of work in an atmosphere of gas by extinguishing itself. W. E. TEALE.

Worsley.

CORNWALL FELSPAR.

SIR,—Before reading the letter of a "Mineral Inspector," in last Saturday's Journal, it was my intention to write you on the subject of the felspar, as I had an opportunity of inspecting this vast deposit, which I am informed is the only one of any importance in Cornwall. I had heard something of it before my visit, but I was not prepared to find a deposit so enormous and so valuable. Let the reader imagine a common, for such it appeared to be, rising some 350 ft. in height and half a mile in width, and the whole mass in all probability a unique deposit. It is difficult to say accurately how one comes to a conclusion. We geologists are not all like Mr. Sapsea, the celebrated auctioneer in Edwin Drood, who, though he had never been to China, could take up a ware and say "Chinese." He had never been to Japan, but something is put into his hand, and he, by marvellous instinct and keen perspicuity, could say "Chinese;" but in a limited sense, when we look at Black Comb, we say "Skiddaw Slate." We gaze at Scorfell and its mighty compeer—Great Gable—both of which once suffered rude shaking during a great convulsion, when the former lost its apex like cutting a cone and the latter was split from base to summit, and the molten porphyry rushed up with fearful impetuosity, we say (although we cannot see through the hills) "Green Slate and Porphyry." We come to Derbyshire, and at Matlock we might, with the sublime dogmatism of Sapsea, say "Limestone." So at Roche the character of the ground exposed, the breadth and compactness of the deposit, the sparseness of the overlying strata, the general control of the hill, all indicated the conclusion to be fair that the whole place was "Felspar." And if so, there must be millions of tons. The deposit lies in the most favourable position for profitable development. Large quantities have evidently been taken away, and the place has not been worked so methodically as is now being done. There is so much fall that the water can run away and keep the workings dry, but in getting this felspar it is not mining, but quarrying. The deposit had been bared and proved to the extent of (say) 300 feet in length, 100 in breadth, and 20 in depth, so that your correspondent is perfectly right in saying that 250,000 tons are exposed to view. I was very much struck with the beautiful whiteness and purity of a large proportion of the felspar. In the bottom, where a stream of water was pouring on the mineral, the purity of the felspar was very marked. A considerable portion of what I may call the second quality was only slightly discoloured, and that superficially. The third quality would, I conceive, be worked to a valuable profit. I should estimate the value (in profits) at more than does your correspondent. Getting the mineral is so easy—a few shots of dynamite would bring down 50 or 100 tons, the selection of the qualities could be mainly done by sharp lads, a light tramway to the station—within a mile—would take the felspar ready for carriage to the shipping port, so I should think a higher profit could easily be reached, but probably your correspondent is perfectly contented with the 10s., and leaves the buyers to make an equal or more profit. The point, however, which struck me in connection with the development of this prodigious mass of valuable mineral was—Here is the place of all others for setting up a manufactory. As to quantity, it is practically inexhaustible. As to locality, there is ample land for works of any extent on the royalty. About 300 yards up the hill Nature and the road surveyors have been working very harmoniously together, and made a fine site for a reservoir, where at a very moderate cost millions of gallons of water could be stored for washing the felspar and supplying motive-power for machinery. The proximity of the mineral railway is a great advantage—by the road hardly a mile, and by a tramway (one of Fell's) about half the distance. For workpeople there is plenty of house accommodation at easy rentals within a short distance. The climate is pure, the locality healthy. In short, for the erection of large works with all needful appliances, eligibility of site, proximity to rail, I have never seen a place that can surpass it. The Belgians seem a go-ahead people. Let them come over and show England what can be done with a grand mineral which they use so largely. In these wonderful days of startling scientific discovery, the electric light almost promising that every town and village will have its own morn, we ought not to be taken by surprise with any new discovery.

Very likely the Bessemer process will soon be improved off the face of the earth. We English are not jealous of foreigners. Let the Belgians bring their capital if they will, but we would naturally like to see some great house like Mintoris lay hold of this felspar and make the place "blossom like the rose." The proximity of the felspar to china-clay might be another inducement for commencing other works. The most natural mode of working up a mineral is to manufacture at or near to the locality of the raw material if every other requirement and necessity are satisfactory. Whether, however, the royalty is worked for the minerals and it is forwarded to wherever it is wanted, or it is consumed on the premises, one thing is clear a more certain and profitable enterprise has rarely come under our notice. That trade will revive is as certain as that the sun will rise to-morrow morning. England, in spite of its depressed trade, in spite of its commercial disasters, is a great nation. It will not do to hang our harps on the willows, but boldly and manfully face all the difficulties by which we are surrounded. Let the capitalists wisely and judiciously liberate their capital for the relief and development of industry; let there be an end of foolish strikes and deadly antagonism between capital and labour. Let the working classes rely on themselves, and not put their case into the hands of men who have some gift of the gab, but who have never shown much grasp of mind, clearness of conception, or any sound and broad views likely in their development to benefit the classes whom they affect to represent. With employers there is generally a disposition to act to the employed on the divine principle—"Do unto others as ye would that others should do unto you." I have seen much of both sides, and I like both, and I honestly believe that the bad are not only the exception but the few. I had much more to say, but I must close for the present. F. G. S.

Ulverston, Nov. 12.

UNLIMITED LIABILITY v. MINING INDUSTRIES.

SIR,—To become a successful investor in joint-stock banking, like every other description of undertaking open to public recognition and acceptance, one must possess knowledge, judgment, nerve, and money. Knowledge is the product of study; judgment is a natural gift, assisted by knowledge, and, indeed, impossible without study. Nerve is also a natural gift, but that, too, may be cultivated by the abnegation of excess, and by moderation in all indulgences. The possession of money may be accidental, or it may have been earned by the possessor, but taken in the long run money belongs to the man who has power to grasp and retain. Recently we have seen, from signal examples, that vast wealth handed down from generation to generation cannot always be held by the hereditary possessors of the hour, while we might point to thousands of cases in which the pauper has risen by thought, care, and abnegation to extraordinary wealth. The same argument applies with equal force to joint-stock enterprise. The gambler accepts the surface current of events, and embarks in unlimited liability, while the true investor looks to the future, and accepts only the present and the past as guides to a correct appreciation of probabilities. The past is gone, the present is realised, and the results of the future affect alone the investor. In joint-stock banking the profits are divided half-yearly, and the inheritance is simply a trader's business based on discount of bills, granting loans on securities which may or may not be sound and good, and the profits arising from the use of borrowed money, the margin of gains upon which is a weak insurance on the hazards of commercial changes and disasters, as witness the lamentable collapse of Overend, Gurney, and Co., Barned and Co., Royal Bank of Liverpool, and now the City of Glasgow Bank and its 133 branches.

As we before observed, the science of investments can prove of no practical use unless through study it becomes searching, and when so applied, earnest and grasping in its scopes, and probably no department of our home industries is so deserving of the attention of the investing public as that of metallic mining. The vast gains acquired shed a lustre on this class of securities that throws joint-stock banking wholly into the shade, as, for instance, Devon Great Consols yielded 1160*l.* on every 1*l.* subscribed; Levant, 1060*l.* on each 2*l.* 10s.; South Caradon, 743*l.* on each 25*s.*; Lisburne, 586*l.* on 18*l.* 15*s.*; West Seaton, 4000 per cent.; Wheal Owles, 1000 per cent.; South Wheal Frances, 5000 per cent.; Buller, 300,000*l.* on 1280*l.* outlay; Tresavean, 4300*l.* on each 32*l.* 10s. share; while at present we can encouragingly refer to the Van, Great Laxey, Grogwinion, South Condurrow, West Tolgus, Mellanear, Roman Gravels, Snailbeach, Minera, Eliza, Pant-y-Mwyn, East Pant-du, and Lead Era; in this latter the tunnel on the main north and south lode will be at once started, and five or six east and west lodes will be rapidly developed, all situate in the limestone grit traversed by two well-known mineral beds, locally called flats, as their general direction is horizontal; at each of these intersections two additional points of discovery will be presented in driving east and west into high ground, while the reports from eminent authorities this week testify to the promise and high mineral character of the lodes and stratification. Progress will be both rapid and economical, as no pumping or drawing machinery will be required for years to come. As regards Pant-y-Mwyn, the sale of ore is 150 tons of lead, and another sale is promised in a fortnight. These facts attest the value of the mine, and also the criticisms through your columns. There can be no doubt of this being an established prize. The Temple, Pateley Bridge, and Wheal Peevor are also worthy of notice.

Wherever, may we ask, can such profits be shown in the whole history of joint-stock banking as are instanced in the above and a thousand other examples in metallic mining? Or where can the finger be pointed to losses in mining enterprises approaching to (say) 100th per cent. of the frightful inflictions imposed on the luckless shareholders in the City of Glasgow and the other joint-stock banks referred to. It is true that mining industries have suffered much of late from commercial depression, but so have manufacture, constructive enterprises, shipping, dock, canal, gas, and many other branches of the nation's trade and commerce. We can point to calls of an exceptionally heavy character in the cases of Tincroft and Carn Brea Mines, but they do not amount to 50 per cent. of the gains for the years 1872-73, while the immense discoveries of tin in our colonies at the Antipodes more than account for this sudden and unexpected transition in the value of the raw product. Thus manufacture and trade with the entire community are alike advantaged through the cheapening price at which the metal is obtained. Railways and telegraphs have done much to regulate and equalise the value of commodities throughout every nook and district of Great Britain, and the production of tin in Australia is solely attributable to the emigration of Cornishmen to that thriving and industrious colony. R. TREDINNICK,

Consulting Mining Engineer.

Union-court, Old Broad-street, London, Nov. 12.

WEST CHIVERTON LEAD MINE.

SIR,—It may be interesting to many of your readers to learn some facts relating to this grand Cornish lead mine—not yet worked out. Although there are persons who state it is, this same statement was persisted in five years ago, and since proved to be incorrect. I know certain parties lost money in "bearing" these shares in 1875 on a rising market, and they have never since ceased to run down the property when an opportunity offered.

In 1863 the present West Chiverton Mine Company came into existence. The mine was divided into 3000 shares only, and like all cost-book mines, calls were made to meet the costs until sufficient lead was raised and sold to pay working expenses. These calls were not of long duration, for from 1863 to 1873 upon a called-up capital of 10*l.* per share (30,000*l.*) they gave back to each shareholder 52*l.* 10s. per share in dividends, equal to 157,000*l.*, and shares with 10*l.* paid were readily saleable at one time at 80*l.* to 84*l.* per share. In 1873 the mine fell off (it had been worked away too quickly, large dividends had been paid, and thus the shares were forced up to 84*l.*), and reports were circulated it was poor, and would have to wind-up. Certain shareholders did not believe these statements, and were determined to ascertain the truth as to how the mine looked. Capt. R. Southey, of Truro, was sent to thoroughly inspect and report upon the whole property, and asserted he could make the mine pay.

At a general meeting in November, 1873, it was resolved to place the mine under new management, Capt. R. Southey being appointed manager of the mine. It was then found things were in a very dilapidated condition, both underground and at surface, which would entail an outlay to bring matters to a profitable issue. Shares were reduced down to 1*l.* each, but quickly rose in price. A call of 10s. per share was made in October, 1874. A call of 1*l.* per share was made in January, 1875, and a further call of 1*l.* per share was made in April; this sufficed to put all things in proper trim. The cry of certain parties was—the mine is worked out, it will never pay again. Against this cry Capt. Southey saw he could make the mine pay. The result has proved beyond a doubt that the mine was not worked out. It has paid 9000*l.* in dividends again, written off 1500*l.* lost through the Burry Port Smelting Company's failure, and but for the low price of lead and blende would now be paying dividends. Shares rose in 1876 to 22*l.* 10s. per share.

I find on reference to the accounts their best lead sold in 1875 for as high as 19*l.* 10s. per ton; their "seconds," 8*l.* and 9*l.* per ton; and their blende 5*l.* to 6*l.* 13s. per ton. Now, compare these with their last prices, and the difference is almost beyond belief, so great has been the fall in lead and blende. Best lead, 11*l.* 15s.; seconds, 5*l.* 2s. 6d. and 4*l.* 12s. 6d.; blende, little over 50s. per ton on the average.

I will now take a few items from the accounts of the lead sales. The produce of sixteen weeks sale of lead, 517 tons, to February, 1875, produced 7113*l.* Produce of sixteen weeks sale of lead, 532 tons, to November, 1876, produced 7432*l.*; while sixteen weeks produce of lead, 520 tons, to February, 1878, produced only 4052*l.*, being 12 tons less and showing a money difference of 3180*l.* I will now take a few items from the accounts of the blende sales. In June, 1875, the 694 tons of blende realised 2207*l.*; in November, 1876, 788 tons of blende realised 3002*l.*, equal to nearly 4*l.* per ton, while the sale of 710 tons in July, 1878, only brought 1875*l.*, a little over 2*l.* 10s. per ton, and they then had 3460 tons of blende for sale, which Capt. Southey estimated at 4546*l.*, equal to a shade over 26s. per ton. The fact is, blende is not worth selling at its present low price. West Chiverton would now be in a splendid position but for the fall of lead and blende, as the above facts prove.

I have before me eight balance sheets issued previous to each general meeting, and they give about 50,500*l.* worth of lead and 30,500*l.* worth of blende sold, together 81,000*l.* There are persons now who will say the mine is worked out; Capt. Southey will tell you he has large resources of lead and immense reserves of blende, and the only thing wanted to pay large and regular dividends is the old price of lead and blende; meanwhile a call or two will be required in West Chiverton. Surely at their present price of 25s. to 30s. per share they are worth picking up. I doubt much whether 100 shares could be obtained even at 2*l.* per share, at which price it would give the absurd sum of 6000*l.* for the whole of this valuable property, with all its buildings, machinery, plant, &c., which has cost fully 60,000*l.* There is no mine in the world with such a future and supplied with the machinery, &c., and having such reserves of lead and blende, selling at the ridiculous price of West Chiverton; way, if the mine were in 30,000 shares, like some I could name, it would be equal to 2s. 6d. per share. Some of the holders have been frightened out of their shares through false reports, and they have been thrown upon a weak market with no one to support it, hence the sudden fall. Try and buy them back, and you will then find what they will cost. I find in the years 1875, 1876, and 1877, they sold nearly 30,000*l.* worth of lead and blende each year.

The total outlay to date has been 12*l.* 10s. per share only, and the dividends paid 55*l.* 10s. per share, proving a splendid property.

42, *Poultry, Nov.* 15. H. GOULD SHARP.

PANT-Y-MWYN MINE.

SIR,—I am now an old mine, and although I have been worked for a number of years, it has generally been under management that has failed to extract from me the great mineral treasures I have been frequently represented to contain. One of my captains was named John Roberts, and you will find reports from him in the Journal for the year 1869, in which he represented that he had somewhere about 300 tons of lead extracted from me, a little fiction which he sustained with considerable pertinacity, and which was only dispelled when the directors sent down their secretary to pay the men, and which turned out after his merited discharge to be only 8¾ tons. And is he the same gentleman who (according to his own account) the Vicar of Llanidloes was so anxious to lend his pulpit to, if so your readers have a most reliable account of Pant-y-Mwyn under his signature in last week's Journal.

ABERDAUNANT.

LAST CHANCE SILVER MINING COMPANY OF UTAH.

SIR,—I desire to call the attention of your readers (but more particularly those who are shareholders) to the position of the Last Chance Silver Mining Company (Limited) of Utah. An elaborate and very able report written by the Chairman was presented to the shareholders in September, 1877, and in consequence of this report, which was considered favourable, the sum of 10,000*l.* was ordered to be borrowed upon debentures, with the mines as security. About seven months afterwards, in April of the present year, advices were published in a London daily to the effect that the Chairman was proceeding to the mines to "at once" resume operations—"crushing, dressing, &c., the ore." Further advices of a favourable nature have from time to time been received. On the 9th instant a letter was issued from the London office to the effect that the issue of debentures "had been so far successful . . . in being able to announce the purchase and complete erection of new pumping and hoisting machinery;" but, in order to provide the funds now required, it was necessary to issue 150 more of the debentures at 10*l.*, and in the event of this sum not being forthcoming the workings would cease. This appears highly contradictory to the cablegram received on Aug. 10, which states that the machinery would commence working on that date. No information in the letter just issued is given as to the profits hitherto made, and the board can hardly expect shareholders to come forward in the way asked, and raise the necessary funds.

Within the last few months two petitions have been presented to the High Court by creditors for the winding-up of the company, and, from enquiries I have made, it appears that the claims of these creditors have been settled, including costs. This mode of procedure is reprehensible on the part of the directorate in the present low state of the funds, as it would be patent to all that unnecessary expenditure of capital is this way is detrimental to the interests of the company. Under these circumstances I think the announcement made in the letter just issued, "your property was never before in such a sound position," is questionable, and I am of opinion that more frankness on the part of the board would be more likely to induce the shareholders to co-operate with them, and this co-operation they can hardly expect in the face of the favourable news from the mines with the conflicting position which appears to exist in their London matters.

I hope some large shareholders will look after their own interests, and call upon our worthy secretary at the offices of the company.

Nov. 13. A SMALL SHAREHOLDER.

[For remainder of Original Correspondence, see to-day's Journal.]

WEST ROSKEAR.—This mine, in 1000 shares, 5*l.* 10s. called up, is making very satisfactory progress, and bids fair to shortly assume an important position. The sett embraces the lodes that were formerly so rich in West Seton, Wheal Seton, and North Roskear, and was worked many years ago under the name of Wheal Rome. The engine-shaft was then sunk 61 fms. from surface, or 36 fms. below adit, but the mine was abandoned before the lodes were opened upon to any extent. About seven years ago the mine was re-opened under the name of West Roskear. A 24-in. cylinder rotary engine was erected, and the mine drained to the 12 fm. level, from which and the adit level a considerable quantity of mineral was sold. The company, however, soon came to grief for want of funds, and the mine, machinery, and materials were purchased and the mine again put to work by some private gentlemen in May, 1877. A 60 inch cylinder pumping engine has been erected, and the engine-shaft drained to the bottom (36 fms.), where two levels are being driven—one by six men in what is called the engine lode, and the other also by six men in the caunter lode. In sinking a ventilation shaft 60 fms. west of the engine-shaft, and upon the engine lode from the 12 to the 24 fm. level very fine indications have been met with, justifying the expectation of a good discovery in the 24, where the lode now presents all the characteristics which were the forerunners of the deposits of mineral in the rich mines above alluded to. Captain A. James, of South Wheal Frances, has just inspected the mine, and in reference to the 24 fm. level west says—"Appearances justify the belief that a course of copper ore is not far ahead. The present company during the short period they have been in possession of the mine have raised and sold from the adit and 12 fm. level also

30 tons of lead ore, realising an average of 20*l.* per ton, 229 tons of blende, and 121 tons of copper ore.

Registration of New Companies.

The following joint-stock companies have been duly registered:—

WINDERMERE HYDROPATHIC COMPANY (Limited).—Capital 15,000*l.*, in shares of 10*l.* Formed to purchase the freehold mansions called Rockville, with the grounds belonging thereto, in Windemere, and the conversion of the buildings into a hydropathic establishment. The subscribers (who take one share each) are—J. Wrigley, Windermere; G. Rhyder, Ambleside; R. Nelson, Kendal; W. Harrison, Windermere; J. Braithwaite, Kendal; D. Boyle, Statham; J. Atkinson, Bowness.

LEEDS MUTUAL SUPPLY SOCIETY (Limited).—Capital 6000*l.*, in shares of 2*l.* By a special resolution, that the Leeds Mutual Supply Society be converted into a company.

CUMBRIAN MANURE WORKS (Limited).—Capital 10,000*l.*, in shares of 10*l.* The purchasing of the works, stock, plant, &c., of the Cumbrian Manure Works, Cumberland, and carrying on the manufacture and sale of artificial manures. The subscribers (who take one share each) are—J. Bramley, Newcastle; J. Harrison, Rock Ferry; T. G. Newton, Liverpool; A. D. Golding, Liverpool; R. H. Shaw, Whitchurch; P. Pyne Browning, Liverpool; A. Towin, Liverpool.

THE NATIONAL ELECTRIC LIGHT CORPORATION (Limited).—Capital 500,000*l.*, in shares of 10*l.* each. To acquire by purchase or otherwise a patent granted to J. Rapieff, or any other patent granted to John Rapieff. To carry into effect an agreement made between E. J. Reed of the first part, J. Rapieff second part, and E. Phillpotts as trustee for the company, for the application of electric currents for lighting and other purposes. The subscribers (who take one share each) are — Arthur John Otway, 19, Cromwell-road; R. Fowler, 3, Victoria-street; Coas. N. Hoare, 8, Bolton-street; N. J. Bayley, 20, Walbrook; H. B. Sandeman, South Norwood; A. Campbell-Walker, 9, Duke-street; D. Cowie, Bromley.

MONETARY ADVANCE COMPANY (Limited).—Capital 20,000*l.*, in shares of 1*l.* each. To take over and continue the monetary and financial agency carried on for many years by J. Baughan, 34, Southampton Buildings. The subscribers (who take one share each) are —J. Baughan, 34, Southampton Buildings; C. L. Kenney, 22, High-street, Kensington; G. Mayorbooke, 9, Gray's Inn-square; J. G. Tongue, 34, Southampton Buildings; E. Blake, Brighton; A. S. Allen, 34, King's-square; J. Norris, 21, South-street.

IMPERIAL BRAZILIAN, NATAL, AND NOVA CRUZ RAILWAY COMPANY (Limited).—Capital 500,000*l.*, in 10*l.* shares. To acquire a concession of the Government of Rio Grande del Norte by which the right to construct maintain, manage, and work a railway between Natal and Villa de Nova Cruz is granted. The subscribers (who take one share each) are—H. Hopkinson, 106, Cromwell-road; M. A. Laing, 36, Wilton-crescent; W. A. Dawson, 13A, Great George-street; M. M. Brown, 7, Tokenhouse yard; S. J. Wilde, 10, Sergeant's Inn; F. Davy, 15, Courtfield Gardens; A. M. S. Erskine, 1, Gloucester-street.

BRITISH TRADING COMPANY (Limited).—Capital, 3000*l.*, in shares of 1*l.* each. The carrying on the business of merchant and agents at home and abroad. The subscribers are—P. E. Neville, Hampstead, 5; S. Keating, London, 1; R. S. Du Part, Stoke Newington, 1; G. Schofield, London, 5; G. W. Garrett, London, 1; G. F. Brown, Leytonstone, 2; G. Lund, London, 1.

DEVAS, ROUTLEDGE, AND COMPANY (Limited).—Capital 200,000*l.*, in shares of 10*l.* The purchase of the warehouses, premises, stock, &c., of the business carried on by Devas, Routledge, and Co., London. The subscribers are T. Devas, London, 10; G. F. Routledge, London, 10; G. A. Russell, London, 10; H. Allen, London, 10; T. E. Devas, London, 10; G. M. Gibson, London, 10; W. M. Tice, London, 1.

THE WORKS COMPANY (Limited).—Capital 50,000*l.*, in shares of 10*l.* Established to take all the necessary means to acquire the rights for the construction of any public or other works, including tramways, railways, waterworks, gas, or other works from any British or foreign Governments either in Great Britain or abroad. The subscribers (who take one share each) are—A. E. Walton, Birmingham, C.E.; H. C. Richardson, Stoke Newington, surveyor; S. J. Hawke, Lewisham, accountant; A. W. Good, South Hornsey, accountant; A. J. Davis, Mornington-road, accountant; E. J. Dowlen, Pimlico, mining engineer; W. Wright, Lambeth, cashier.

ENGINE AND BOILER INSURANCE COMPANY (Limited).—Capital 250,000*l.*, in shares of 10*l.* For insuring steam, gas, and water engines, machinery, &c. The subscribers (who take one share each) are—R. B. Longridge, Earnscliffe; J. Galloway, Knott Mill Works; W. E. Barratt, Kersal; M. Langridge, Manchester; W. F. Curthwaite, Manchester; J. Galloway, jun., Knott Mill; W. Fletcher, Ambleside.

TOXTETH BREWERY COMPANY (Limited).—Capital 5000*l.*, in shares of 5*l.* The acquisition of the Toxteth Brewery, Liverpool, together with the plant, &c., of same. The subscribers are—J. Finlay, Liverpool, 10; J. Finlay, jun., Birkenhead, 10; J. Morrison, Liverpool, 20; R. Forkey, Liverpool, 20; J. Newall, Liverpool, 20; A. Wright, Kennington, 10; W. H. Brabner, Liverpool, 10.

WARRINGTON AND WIDNESS TRAMWAYS COMPANY (Limited).—Capital 80,000*l.*, in shares of 10*l.* The construct and lay down tramways in Warrington, Widnes, and elsewhere, and equip, work, and maintain the same. The subscribers are—T. Ewer, Penge, 25; T. Jarvis, 3, King-street, 25; L. Bishop, 28, Budge-row, 25; F. C. Philips, 20, Basinghall-street, 25; J. E. Costello, 115, Cannon-street, 10; S. H. Beckles, 43, Fish-street Hill, 10; C. Philips, 115, Cannon-street, 25.

NEWCASTLE-ON-TYNE STEAM BOILER INSURANCE COMPANY (Limited).—Capital 50,000*l.*, in shares of 25*l.* each. Insuring steam boilers and property and goods against explosions or collapse of flues. The subscribers are—T. Gray, Mitford, 50; G. S. Swan, Tynemouth, 50; R. Free, Newcastle, 50; G. Davidson, Gateshead, 20; T. Sheldon, Jarrow, 24; W. Kinnear, Acklington, 25; W. Campbell, Newcastle, 20; W. B. Campbell, Newcastle, 10; W. B. Jackson, Newcastle, 10.

STAFFORD TOWN AND COUNTY COCOA HOUSE COMPANY (Limited).—Capital 5000*l.*, in shares of 1*l.* To carry on the business of general refreshment house keepers. No wine, ale, or spirits shall be sold. The subscribers are—J. Avevill, Stafford, 10; H. Woodhouse, Stafford, 10; D. Norman, Stafford, 10; T. W. Owen, Stafford, 4; E. Lloyd, Stafford, 25; W. Silvestre, Stafford, 10; H. K. Eatens, Stafford, 10; F. R. Jones, Stafford, 20; N. Joyce, Stafford, 10; S. D. Scammell, Stafford, 5; B. A. Right, Stafford, 10; W. Lloyd, Stafford, 4; F. Moore, Stafford, 4; Chas. H. Wright, Stafford, 5; B. Handley, Stafford, 5.

EUROPEAN AND AMERICAN TELEGRAM COMPANY (Limited).—Capital 15,000*l.*, in shares of 10*l.* To form telegraphic agencies in the principal cities, towns, and other localities in the United Kingdom and Ireland and its dependencies. To acquire by purchase the telegraph agency carried on by Otto Rochs, Finch-lane. The subscribers (who take one share each) are—F. F. Buffen, 97, Clapton Common; R. W. O. Rochs, Tottenham; W. P. Daniels, Westbourne Park; J. Bark, 118 Blackfriars-road; J. Henry, 23 Philpot-lane; H. C. H. McCrea, Woodland-terrace; R. Roe, 17, Railway Approach.

BALLESWIDDEN.—At the Royal Geological Society of Cornwall Dr. Foster read a paper descriptive of this once famous mine, abandoned in 1873, founded chiefly on facts collected by Capt. T. P. Rowe, formerly agent there, and now of Botallack. The paper recorded the geology of the mine for future reference. The mine is wholly in granite, and differed from most of the other mines in the parish by being a considerable distance (two miles) from the slate. The lodes consisted of small parallel tin rocks, locally called hard work, with a little tin disseminated throughout. The tinstuff obtained from the "gries," together with the adjacent hard work, produced about 60 lbs. of black tin to the ton of stuff, or rather more than 2½ per cent. Mr. Edmund Davy, formerly the purser, had furnished a statement showing that during the 36 years the mine was working more than 1200 tons of black tin were sold, of a value of 694,024*l.*

Meetings of Public Companies.

LEADHILLS SILVER-LEAD MINING AND SMELTING CO.

The third ordinary meeting of shareholders was held at the offices of the company, Finsbury-circus, on Friday, Nov. 8,

Mr. PETER WATSON presiding.

Mr. F. R. WILSON (secretary) read the notice calling the meeting.

Mr. WILSON also read the reports of the directors and of Captain Waters, which were as follows:—

DIRECTORS' REPORT.

The directors regret that from various causes the third ordinary general meeting is somewhat overdue. Since the last meeting, in consequence of the death of Mr. John F. Nevin, the appointment of a successor had to be carefully considered, and the directors have concluded an engagement with Mr. Thomas Newbigging, who has had long practical experience as agent at the mines, and is well acquainted with the district. The directors have every confidence in the selection. The fall in the price of our produce, referred to in the last report, has still continued, but the directors trust that prices have now seen their lowest. Your directors visited Leadhills in the month of September, when the Chairman, accompanied by Mr. York, Capt. Waters, and Mr F. R. Wilson, the secretary, devoted themselves during three whole days to a careful inspection of the mines, dressing-floors, smelting mills, and books of the company, and are pleased to report a very great improvement in the progress of the works at the dressing floors and smelt mills, and, indeed, the surface works generally. In the dressing-floors, new classifiers, new crusher rolls, and a re-arrangement of the jiggers have been put up and carried out. By this arrangement the slimes go direct from the crusher into the round buddle instead of, as before, into catch-pits, thereby effecting a considerable saving of time and money. Another large catch-pit has been constructed, and the directors have ordered two others to be made at once. The waste has been already very apparently diminished, and the water in the burn presents a totally different aspect. When the two pits now, or immediately to be, in course of construction are completed, it is expected that a further great saving will be made. The additions and alterations at the smelt mills, which have entailed a considerable outlay, are nearly completed for this year, and the saving of fume is going on very profitably. It is recommended that a further addition be made to the flues during next summer. The directors went at great length into the monthly cost, with a view to a general reduction in the expenditure and the diminution of the number of hands where practicable, and a considerable saving has been the result. The directors refer to Capt. Waters for a full description of the condition of the mines.

AGENT'S REPORT.

Nov. 8.—Agreeably with instructions from the secretary I proceeded to the mines on Tuesday last, and occupied myself up to yesterday morning taking notes, and providing myself with materials for a second general annual report. Following the course pursued on previous occasions I shall here give you a list of the various points now under development, with particulars of the settings for November, and reserve other details and general remarks for the conclusion of the report.—Brow Vein: The stope in back of the 60, south of Glengonar engine-shaft, by two men, at 30s. per fathom, and 20s. per ton, worth ¾ ton per fathom. No. 2 stope, in the back of the said level, north of the winze, south of the shaft, is set on tribute to two men, at 110s. per ton of dressed ore; lode worth ¾ ton per fathom. The stope in the back of the 20, north of Moffatt's winze, north of the shaft, by four men, at 45s. per fathom, and 10s. per ton; the lode is worth 25 cwts. per fathom. Gripps' adit to drive north of the above-named shaft, by four men, at 9 s. per fathom; the lode is yielding good stones of ore, and improving; this end is going northwards into virgin ground, and looking at the country rock in sight, and the improved character of the lode visible of late, I should not be surprised to hear of an important discovery in this direction any day. The tribute pitch in back of Gripps' level south, by two men, at 110s. per ton. No. 2 pitch, in Gripps' level south, by two men, at 110s. per ton.—New Vein West of Katrine Lode: The tribute pitch in back of Gripps', north and south of Muir's cross cut, by two men, at 110s. per ton.—Hopeful Vein: The tribute pitch in back of Gripps' level north, by three men, at 110s. per ton.—Muir's Cross-Cut: Gripps' level to drive west of Glengonar shaft towards the side lodes, by four men, at 7*l.* per fathom; there is a change of a marked character in the structure and colour of the country rock in the present end of the cross cut, but whether the said change is indicative of our near approach to one of the side lode it is premature yet to say. The cross cut is going forward for the purpose of intersecting Easty Voyage and Westy Voyage veins, as per clause in the least, but what the actual distance to them is (the underlie being uncertain) it is impossible to say. I would remark here that it has taken several years to drive Muir's cross cut west to the present point, a proof that the trial is considered to be of great importance.—Dobie's Vein: The tribute pitch in bottom of Gripps' level, north of Muir's cross-cut, by four men, at 100s. per ton.

Brown's Vein: Jeffry's engine-shaft to sink below the 55 fm. level, to complete the depth required for a 70 fm. level, by six men, at 11*l.* per fathom; about 9 ft. further will put us down, and it is expected that the 70 fm. level south will be commenced in a fortnight from this date. The ore ground, worth from 3 to 4 tons per fathom, seen along the bottom of the 55 south, is dipping north towards the engine-shaft, and we feel assured that the 70 south will almost immediately be into a productive course of ore ground. No. 1 winze in the 55 south is down 8 fms. 5 ft. 3 in., lode throughout being worth quite 3 tons per fathom. The water being difficult to keep clear, we have set the men to drive north and south from bottom of winze at 95s. per fathom, and 10s per ton; the lode in the end being worth 3 tons, and north end 3½ tons per fathom. No. 1 stope in back of this level south by four men, at 65s. per fathom, and 20s. per ton; lode worth 1 ton per fathom. No. 2 stope by four men, at 60s. per fathom, and 10s. per ton; worth 25 cwts. per fathom. The drift north of No. 3 stope above the 55 by four men, at 90s. per fathom, and 10s. per ton; lode worth 3½ tons per fathom. A new winze in the 55 north of shaft by four men, at 90s. per fathom, and 10s. per ton; lode worth 1½ ton per fathom. The tribute pitch in the bottom of the 30 south by two men, at 110s. per ton. The tribute pitch in the bottom of the 20 north by four men, at 110s. per ton. The winze in Gripps' adit south by four men, at 100s. per fathom; lode worth 1 ton per fathom. The tribute pitch in the back of Gripps' level, south of Jeffrey's, by four men, at 100s. per ton. Raik Vein: Watson's shaft below surface, going down on old Raik and Highwork veins, by six men, at 14*l.* per fathom; present depth about 54 fms., there being about 7½ fms. further to sink to be on a level with Gripps' adit. Gripps' level, south of Reid's shaft, by four men, at 55s. per fathom, and 10s. per ton; this level is now within 4½ fms. of being under the large stalls put in by the old men, and we are looking forward to getting into productive ground accordingly. I would remark here that the said end is now about 41 fms. north of Watson's shaft; in other words, we have that number of fathoms further to drive to get opposite the said shaft. The tribute pitch in the back of Gripps', in old Raik mine, by four men, at 110s. per ton. The tribute pitch in bottom of Gripps' in said old mine by four men, at 110s. per ton.—Raik Vein, Reid's Shaft: The 20 fm. level south of Brown's winze is driven 12 fm. 5 ft.; lode above the bottom varying from 2 tons up to 6 and 7 tons per fathom. We have sunk about 4 ft. below this level at two different points this week by way of trial, and find the lode to be worth 6 tons per fathom in the one and quite 7 tons per fathom in the other place; this run of ore is evidently the outcrop of a great Raik bunch. We have made arrangements for stoping a piece of ground 4 fms long by 9 fms. high south of the said Brown's winze, and from the 20 to the 10, to enable us to make No. 2 winze from Gripps' adit a temporary shaft to the 20 and perhaps 30 fm. level. The stoping will be done by eight men, at 30s. per fathom, and 10s. per ton; lode worth 2 tons per fathom. The stope in the back of the 10, north of No. 2 winze, by four men, at 20s. per fathom, and 10s. per ton; lode worth 2 tons per fathom. The stope south of ditto by four men, at 20s. per fathom, and 7s. per ton; lode worth 3 tons per fathom. The stope in the back of the 10, south of Jeffrey's vein, on Raik vein, by four men, at 30s. per fathom, and 10s. per ton; worth 18 cwts. per fathom. Two men are driving south on Raik vein, from the bottom of trial shaft, by the dressing-floors at Reid's, at 15s, per fathom, and 10s. per ton; the lode is worth ½ ton of lead ore per fathom, and the indications point to considerable further improvement.

Jeffrey's Vein: Gripps' adit to drive north of Raik vein on the above lode by four men, at 9 s. per fathom, and 10s. per ton; lode very promising indeed, but does not contain ore to value at present; this drivage, as stated in the report of May 16 last, is going north-west towards extensive old workings, under which we expect to find a continuation of the ore ground which was so prolific in the upper sections of Jeffrey's lode. The stope in back of the level, north-west of the junction, by four men, at 30s. per fathom, and 20s. per ton; lode worth 2 tons per fm.—Mill Vein: Tribute pitch in Gripps' adit, on the above by two men, at 100s. per ton.—Cairo's Vein: Tribute pitch in bottom of Gripps', on the above, by three men, at 110s. per ton.—George's Raust Vein: Gripps' adit to drive north of Muir's cross-cut, on the above lode, by four men, at 70s. per fathom, and 10s. per ton; this end is going forward for the purpose of exploring the lode below the George's Raust old mine, and all the miners look upon the trial as one of great importance. The lode in the present end is in a confused state, but judging from the large quantity of water now flowing (it would work a mill) I believe we are nearing a point where there is a wider and more productive lode. The foregoing exhaust the setting list for November, and I will now go into a few details bearing on the dressing and smelting department. The dressing machinery is adequate for all our requirements. At the smelting works we have built a chimney or stack over 70 ft. high, and extended the flues from the furnaces to the base of the stack, over 400 yards, making the entire length now over 700 yards. This work is done in a complete and substantial way, the sides of the flues being built with lime and stone, and the arching with brick, all being subsequently covered with till or soil from the mountain side. In previous years 200 to 300 pigs of lead were got from the flume collected yearly; last year 400 to 500 pigs were smelted, and this year we expect to realise over 800 pigs (say) 40 tons of lead. The last additional length (200 yards) of flue is not yet connected to the furnaces, but we expect to complete the link in a fortnight from this date. With the whole length (700 yards of flue at work) the quantity of flume saved yearly should be considerable.

Lead ore raised and weighed into the various bins from Sept. 30, 1876, to Nov. 2, 1878, is as follows:—For five weeks ending Sept. 30, 1876, 218 tons 14 cwts.; for three months ending Dec. 31, 1876, 634 tons 9 cwts.; for three months ending March 31, 1877, 779 tons 13 cwts.; for three months ending June 30, 1877, 812 tons 11 cwts.; for three months ending Sept. 30, 1877, 670 tons 16 cwts.; for three months ending Dec. 31, 1877, 545 tons 18 cwts.; for three months ending March 30, 1878, 737 tons 12 cwts.; for three months ending June 30, 1878, 586 tons 5 cwts.; for three months ending Sept. 28, 1878, 625 tons 8 cwts.; for five weeks ending Nov. 2, 1878, 193 tons 14 cwts.: total, 5805 tons. Lead ore in hand dressed, 302 tons 16 cwts.; lead ore in hand to dress, 103 tons 5 cwts.: total, 406 tons 1 cwt. Pig-lead in hand, 3287 bars, (say) 164 tons 7 cwts. A considerable reduction both in the prices paid for mining proper and in the wages of the surface people throughout have been made, and every effort will be put forth to keep the expenses down to the lowest amount consistent with true economy.—ARTHUR WATERS.

The CHAIRMAN said—Gentlemen, in rising, as I do with a great deal of pleasure to-day, to move that the report of the directors and the accounts, and the report of Capt. Waters be received, and, with your permission, that they be adopted, I may observe that in these unfortunate and depressed times it is a very arduous duty for a Chairman to express the feelings which he must have in a concern like this, on behalf of his co-directors and himself, and also of you, gentlemen, as shareholders. It is unfortunate, I say, because if you, gentlemen, knew the arduous duties which are really performed by directors and officers of mining companies generally at the present time, I am sure you would know that it is no easy task. Since we met you in June last it has been no easy task to look into every item of expenditure with regard to the development of this property; but we have done so with the greatest care, and with the greatest attention, and I think that under all circumstances the shareholders in this concern have some reason to be satisfied. We have, notwithstanding the temporary depression which has existed, and still exists, not only in this country but in every country throughout the world, a valuable property in the Leadhills Silver-Lead Mines and Smelting Works. (Hear, hear.) It is unnecessary to occupy your time to-day by dilating on the unfortunate state of affairs now going on throughout the length and breadth of the land. What will be the ultimate result would require a very wise man to say—whether we have got to the worst or whether we are likely to see still further depression; at any rate, it is very hard for all public companies and all trades of every description. In lead mining, in particular, it is very unfortunate. When we look back only two or three years, and remember that then we had lead at 24*l.* per ton, whereas now you see it quoted at 14*l.* 15s. to 15*l.* per ton, it is really a wonder there is a lead mine working at the present time with such an enormous fall. If you had asked anyone some time ago to predict that we should have had a fall of 8*l.* or 9*l.* per ton in the price of lead they would have said it was almost impossible for lead to fall so low, and especially in so short a period. Since we met twelve months ago the price of lead, which at that time was 20*l.* per ton, has fallen to 14*l.* 15s. and 15*l.* Therefore, I think under all the circumstances we ought to be congratulated on being able to present such an account as we do to the end of June of our mining operations and smelting works. You will see that we have in cash on deposit and current account in bills receivable, and debtors on lead sales and advances on miners' cottages, a sum of 7300*l.* in round numbers, and we had lead and lead ore in stock to the amount of nearly 7000*l.*, making altogether nearly 14,000*l.*, and the only liabilities against that were 1657*l.* However, since that account was made up I am sorry to say we have had a further depression in the price of lead—not but what that has been realised, and realised almost at the price put down here; therefore, as far as the accounts are concerned, there is no great alteration. But since June we have had a further fall, and it is difficult to say whether we have yet got to the lowest price; but I may say that from information which has reached us during the last few days we have reason to believe that we have got to the bottom. I think lead has gone up in the foreign markets from 20s. to 25s. per ton, and if the Americans can sell their lead over there at 16*l.* per ton (which is the price they are getting) they are not going to send it over here to sell at 15*l.* per ton. (Hear, hear.) A great advance is being made in America with regard to building houses and other things, in connection with which large quantities of lead will be required, and hence a considerable advance may be anticipated in price, because the Americans instead of sending the lead to this country will keep it there, and a very good job too. I will now touch upon another matter. It is only within the last six months that we have had any lead from America. We have always sent lead over to America, and before landing it at New York we have had to pay a duty of something like 8*l.* per ton; but when lead comes over here from America it comes over free. Now, I ask if that be a true state of free trade? (Hear, hear.) I think not; I think there should be a reciprocity, and I certainly think that the time has come when our Legislature will have to take these things into consideration. (Hear, hear.) I say that our country is being, practically speaking, annihilated. I may tell you that in Cornwall, one of our greatest metal-producing countries, the produce has greatly fallen off. Copper, which was 160*l.* to 170*l.* per ton, is now 58*l.*; tin, which was 150*l.* to 160*l.*, is now 50*l.* to 6 *l.*; lead, which was 23*l.* to 24*l.*, is now, as I have said, from 14*l.* to 15*l.* America is making such great strides that the time has come when this matter must be taken into consideration, and I hope that members of Parliament, and the members for Cornwall more particularly, will give some attention to this very important and vital question. Now, with respect to the accounts. Capt. Waters, I am sorry to say, is not very well, but he has not shirked his duty, but has made his monthly visit to the mine, and we have put this meeting off for one month in order that he might meet you, as we thought we might have a somewhat better account of the mine. Capt. Waters came up last night from the mine, having spent several days there, and I am agreeably surprised, and the directors are as well, to have such an excellent account to lay before you to-day so far as the mine is concerned. In June last I called attention to various points of development, and I said that in the midst of all this depression there was one source of satisfaction to the directors—that, notwithstanding the depressed state of things, we were vigorously prosecuting the various developments of underground operations, in sinking shafts and driving levels, in the hope and belief, and, indeed, the full knowledge, that they would make very important discoveries in the mine. I also ventured to say I believed some of these discoveries would come off during the next six months. Now, gentlemen, you have heard the report of Capt. Waters—that, on the whole, the mine is looking very promising in various points, and during the last four months we have made a very important discovery, which Capt. Waters has referred to in his report. We have driven over some 15 fms. of ore ground—in fact, it was almost immediately after our meeting—and it improved to 2 tons per fathom, and then to 3, and to 4, 5, 6, and 7 tons per fathom. The end is now stopped, as we have commenced sinking in the bottom, and it appears that we are on the top of a very rich bunch of ore. The end is not quite so good as it was, but it is a great deal better at the bottom, and they are now opening it up, and it is improving to 6 and 7 tons of ore per fm., and Capt. Waters tells me he thinks we are going to have a rich bunch of ore. That is the bottom of the Raik Mine.

Capt. WATERS: Perhaps I may remark that the end was not stopped because of the poverty of the ground, but in order to bring No. 2 winze down as a temporary shaft. The end is better now than when we started to drive from the winze.

The CHAIRMAN: In fact, it was stopped to sink the shaft on the bunch of ore. We have continued most energetically, notwithstanding this great depression—to reiterate the remark made in June last—to open up the mine, for unless you do sink your shafts and drive your levels you never can make important discoveries. Well, that has been continued, and is being continued, in the same way. With regard to the expenditure, we have expended a great deal of money—the best part of 1000*l.*—in sinking Watson's shaft, and we have got down to 60 fms. now in this shaft. The object of that shaft is to go down upon the wonderful bunch of ore stated by old men in the locality to have been discovered 150 or 200 years ago, and the knowledge of which has been handed down, I may say, from generation to generation. That there is an enormous body of ore to be found there can scarcely be doubted, and when that shaft has been sunk down we believe we shall open up a very extraordinary deposit of lead.

A SHAREHOLDER: We have not got to the bottom of the old workings.

The CHAIRMAN: No. We have spent a great deal of money there in dead work and in driving the various levels; furthermore, we have spent a large amount in our smelting mills, which are now nearly completed, and we shall knock off the cost there. Again, in the flue and catch pits we have spent some money, and shall have some more to spend on another. With regard to the boring machinery we have not done anything yet, because until we get the shaft down, and can work with greater efficiency, we have not depth to put it up. There has been a suggestion from several shareholders that during these depressed times the lords should be asked to reduce or give up their dues. I am bound to mention this subject to the meeting, because I have promised two or three shareholders that I would do so, and I should like to hear a discussion on that point. The prospects of the mine altogether are looking a great deal more cheering, and I would caution shareholders against being led away by the present temporary depression. This is a mine which has been working many generations; it is an enormous property, and is a different property from ordinary mines, for there are numerous lodes, and if you look to the report which Capt. Waters presents to day you will see there is scarcely a point in operation which is not producing ore, and the great thing is to continue driving the levels and producing ore. I think, under all the circumstances, the shareholders in this concern are to be congratulated on the favourable state we are in, considering the great depression in the price of lead. A fall of 5*l.* per ton is a serious thing; it means paying a dividend or not paying a dividend.

Mr. F. R. WILSON: The fall is 8*l.* per ton from the highest to the lowest.—The CHAIRMAN: Even if we get an advance of only 3*l.* or 4*l.* per ton, we shall be happy to give you a good dividend in this mine. (Cheers.) In conclusion, the Chairman formally moved the adoption of the reports and accounts.

Mr. YORKE seconded the resolution, and expressed his full concurrence in the remark of the Chairman that in Leadhills they had a wonderful property.

Mr. HAMILTON said he believed they had a good mine, and it was satisfactory to know that the directors themselves had a large interest in it.

The CHAIRMAN, in reply to a further remark of Mr. Hamilton's regarding the expenses of management, pointed out that this was not an ordinary mine, but there were also smelting works, so that it was a commercial as well as a mining property, and required an extra amount of labour and attention. He pointed out that the directors had succeeded in reducing the cost from about 1400*l.* to 1100*l.*, which was a proof they had done everything in their power to economise as much as possible.

Mr. PETHERICK fully agreed with the suggestion that some effort should be made to reduce the dues, if not to obtain entire relief from them for a time. This company was paying double the amount of royalty that some companies were, and he thought some serious step should be taken by the directors to put the matter properly before the lords. He hoped the directors would see their way to adopt the boring machine, provided it could be adopted with advantage. He did not see the use of turning out ores at the present low price merely for the sake of working. Let them develope the mine so that when good times came they would be able to raise larger quantities than now. (Hear, hear.)

A SHAREHOLDER asked whether anything was being done with respect to the gold in the mine?

The CHAIRMAN replied to the above and other observations. Having borne testimony to the great care and attention bestowed by the secretary in promoting in every way the interests of the company, he went on to say that no doubt the dues were very heavy, and he was glad Mr. Petherick had mentioned the subject. The company was developing the mine so vigorously that he thought the lords might forego some of the dues. The Duke of Leeds had reduced his dues from 1-20th to 1 60th, and had given them up entirely for six months. In some of the richest mines in Cornwall the dues were being reduced, and in some cases given up, and he sincerely trusted that in this concern the lords would see their way to meet the shareholders on that point. He also believed that Lord Dartmouth had given up his dues.

The resolution for adoption of the report and accounts was then put and carried.

The SECRETARY said that with respect to the dues the matter was under consideration, but the fact was that the property was in the hands of trustees.

Capt. WATERS, referring to the question concerning the gold, said that within the last three weeks a nugget was found near Moffat's shaft, which had been sold by one of the Leadhills miners for 6*l.*—A SHAREHOLDER: Are gold-bearing lodes found?—Capt. WATERS: We have not found gold in the quartz yet.

The CHAIRMAN said it had been stated that in former years more than 500,000*l.* worth of gold had been sold, and he believed Mr. Robert Wilson (director) still thought favourably of gold prospects.

The SECRETARY said it had been stated by some persons that the company had spent all its money, and that more must be raised, and this has given some shareholders considerable anxiety. Now, he might state that the assets in reserves and actual cash were 4442*l.* 19s. 3d., and the lead and lead ore on hand, taken at the present depressed price, was 6777*l.*, making an amount of 11,320*l.* to the good.

As regarded the gold, he read a report from Mr. Rowe, who went down, and was very much impressed with the similarity of the strata to those of Frazer River, in British Columbia; he found visible traces of gold, and expressed a belief that if an effectual trial could be made it would be attended with good results. Accordingly Capt. Waters was having a set of cradles made by the carpenters on the mine, for the purpose of having trials made for the gold. The expense would be very small, and if the trials were not successful the timber could be used for other purposes in the mine.

The CHAIRMAN said that was all the business, and expressed a hope that before they met six months hence an improvement will have taken place not only in the price of lead but all other metals, so that the directors will be able to meet the shareholders with better results.

On the motion of Mr. HAMILTON, seconded by Mr. TAYLOR, a hearty vote of thanks was passed to the Chairman and directors; and a SHAREHOLDER remarked that they could not have better men on the board, and the fact that the directors held a large stake in the concern was the best warrant that they would do their duty.——The CHAIRMAN acknowledged the compliment.

A vote of thanks was then passed to the secretary and to the manager and agents at the mine, and the meeting broke up.

WEST PATELEY BRIDGE LEAD MINING COMPANY.

An ordinary general meeting of shareholders was held at the company's offices, Gresham House, on Tuesday, under the presidency of Mr. BAXTER (the chairman).

Mr. J. J. TRURAN (the secretary) read the notice convening the meeting.

The report was taken as read. The accounts showed an expenditure of 4045*l*, and an available balance for future working of 9118*l*. The report appeared in last week's Journal.

The CHAIRMAN said: The last time I had the pleasure of meeting the shareholders I ventured to congratulate you upon the possession of what I believed, and still believe, to be a most valuable property. I also stated on that occasion I thought that before this meeting the mine would begin to give some tangible results. I admit I am disappointed, as are also my colleagues and the manager. But our disappointment arises from explainable causes—the unexpected delay in getting down the Craven Cross shaft; this is a disappointment, so to speak, only skin deep. My confidence, as well as that of my colleagues, in the great value of the mines is not only unabated but if anything it is increased. The 56 fm. level, which in connection with the Craven Cross shaft is really the key of the mines, is expected to be communicated by the end of the year. We shall then have 20 fathoms to drive east from the shaft and west from the 56 fm. level. Our manager expects to reach the 56 by the end of November, when we shall put out cross-cuts north and south to reach about 12 or 14 proved well-known veins. By means of no less than 24 or 28 ends we shall thus be opening up rapidly and inexpensively this important group of veins; if only two or three of them respond to well-based expectation we cannot fail to realise handsome returns. (Hear, hear.) As to the Craven Cross vein, which has a traditional fame, if indications in the bottom of Craven Cross shaft be of any value or earnest of what we may expect, and if these 12 or 14 lodes maintain anything like their reputation, I think we may look forward to the time with confidence and pleasure, for there must be yielded tangible and good results. In another section of the mines, No. 2 shaft has been sunk 32 fathoms, and the lode is very strong and promising; a cross-cut is now being driven from the 28 fm. level, on the same lode, and will also intersect several other veins of known productiveness, not the least being the New Discovery and the Longthorn's, the latter within 100 fathoms of the point of intersection yielded close to the surface lead ore valued at from 12,000*l*. to 15,000*l*.; this will be reached in about 12 fathoms. Longthorn's is looked upon as one of the great legends of the locality. A few miners worked it near surface, and when about to abandon it found the vein, and realised what I have already stated. We need hardly say that we look forward with interest to the realisation of this point, as there is every reason to believe that large quantities of ore may be met with here. The general experience of the district, as well as all districts in the same formation, is that when comparatively small bunches of lead ore are met with at and near surface they are found to lead to rich deposits at greater depth—in other words, the lodes became more settled and confirmed, and less subject to "nips" and "bellies." The same level will be driven to reach a vein which is about 30 fathoms in advance of the present workings. The lode was sunk upon for some 13 fathoms, a good and strong vein; sinking has been suspended until the level has been driven up, taking the lode 15 fathoms deeper. The New Discovery vein is 40 fms. from No. 1 shaft, and is also of considerable value; it will be reached at an increased depth by the same level, and we have reason to expect good results from it. As I have already pointed out, the great key of our mines is the Craven Cross shaft, and until we get this sunk it will be wrong to look for any very great results. I regret that the accounts have been published in such a form as to be rather likely to mislead the shareholders, but I promise mise amendment in this respect in the future. It is made to appear that the office expenses have absorbed 529*l*., whereas the actual charge for the year is only 129*l*. During the time we have been at work we have sunk no less than 130 fms, at the different shafts, and driven 240 fms. of levels; therefore, we do not think extravagance has characterised our expenditure. Mr. Truran and myself examine carefully each pay sheet, and the manager supervises the expenditure on the spot. Besides being interested as manager, Capt. Williams is largely interested as a shareholder. The actual expenditure has been 4045*l*. We have erected a Robey's engine of sufficient power to carry us down 30 fms. below the 56, the cost having been 405*l*.; we have erected crusher, water-wheel, and dressing-floors; we have made tramways at surface and underground, and five reservoirs. I do not think anyone will say that we have badly laid out the money in the expenditure of 4000*l*. The report tells you what is the financial position of the mines, and I think there are very few, if any, similar undertakings that occupy such a position. At the time the report was drawn up we had an available balance of 9118*l*. I do not know where there is another mine with such ample means for all possible requirements. We all firmly believe that anything approaching this amount will not be expended, but that satisfactory results will be realised at perhaps a much earlier date than some shareholders would seem to think. (Hear, hear.) I will now move that the report and balance-sheet be received and adopted.——Mr. CORNELIUS PEARSON seconded the proposition.

Mr. DAVID WILLIAMS, M.E. (the manager), explaining with considerable minuteness the main points of operation, stated that in opening out Craven Cross shaft great difficulties had been encountered. The Chairman had rightly described this section of the property as the key of the mines. As the shareholders had already been informed, this shaft at a point 34 fms. from the surface, touched the vein, where it is 6 ft. wide, between well-defined walls. On the north wall there is a solid branch of galena from 8 to 12 in. wide; in the west end of the shaft there is a solid branch of ore standing over 12 in. wide. As soon as the 56 has been reached, about the end of the present month, driving east and west would be commenced to communicate with the deep adit. This done, cross-cuts north and south would be put out to reach the parallel lodes, five or six in the north all having proved very rich in the neighbouring mines, but had never been touched in the West Pateley Mines. He hoped to commence cross-cutting about the latter part of January. It was proposed to employ rock-drills to drive the cross-cuts at right angles from the Craven Cross shaft to reach the parallel veins, all of which he believed would be found more or less rich. Below the 56 he looked also for greater results—everything pointed to that conclusion. To say nothing of the great richness of the Craven Cross vein as seen in the shaft, the level (the 56) had a course of ore in the sole for 20 fms. in length, the vein throughout the driving being exceedingly promising, fully 4 ft. wide, and worth for lead ore 1 ton per fathom. The old workings met with in the shaft and the rich lead broken by the present company showed most conclusively that the lode must have been of considerable value. This lode would be sunk upon below the 56, opening out an important section of ore ground for future returns. From No. 2 shaft, in another part of the company's property, cross-cutting had been commenced to reach four other veins of considerable value. As he had stated in his report, referring to the Craven Cross section, judging from the large quantities of ore raised from the workings above, and the character of the vein at this depth, their prospects here were most flattering. The mine continued to open out in a most satisfactory manner, and only required time and money to carry out the points to which he had referred to prove it a lasting and profitable investment. The more he saw of the mine the better was he satisfied as to its inherent value, and at no former period had he been so satisfied with it as at the present time. The Chairman, Mr. Mansell, and other shareholders present had visited the mine several times; Mr. Mansell had accompanied him (the manager) more than once through the whole of the workings, both underground and at surface, and he believed those gentlemen were fully satisfied with all that had been done. (Hear, hear.)

Mr. CORNELIUS PEARSON, who stated that he had recently visited the mine, enquired of the manager his opinion, based upon his knowledge and experience of mining, of the intrinsic value of the shares, having regard to the work done at and the future prospects of the mines?——Mr. WILLIAMS replied that, taking into consideration the amount of work done underground and at surface, and the prospects of the mines, he considered the shares to be now worth 4*l*. per share. (Hear, hear.)

Mr. G. M. HARVEY enquired the capacity the manager had for the output of the lead ore, and what quantity could be returned from the mines when the cross-cuts had intersected the lodes?——Mr. WILLIAMS said everything depended upon the value of the lodes when intersected, but there would be no difficulty in returning 200 or 300 tons per month.

The CHAIRMAN said the best evidence he could give as to his own opinion of the value of the mines was that, with his friends, he held about 20 per cent. of the whole of the capital. (Hear, hear.)

Mr. F. W. MANSELL said that, with his friends, he also held a very large stake in the mine. He often visited the property, and always came away better satisfied every time.

Mr. WILLIAMS said that his wife and himself held 815 shares, and he had refused 2*l*. per share for them, and when the unissued shares were allotted he offered to take any balance remaining, but he was sorry to say there were only 25 left for him.

The report and balance-sheet were adopted unanimously.

Mr. Hammond and Colonel Todd, the retiring directors, were re-elected. Mr. Carter was re-elected auditor.

Upon the proposition of Mr. MANSELL, seconded by Mr. CARVER, a unanimous vote of thanks was passed to the Chairman for the able and lucid statement he had submitted as to the position and prospects of the mines, and to the directors for their assiduous attention to the company's interests.

The CHAIRMAN appropriately acknowledged the vote, and expressed a hope and belief that when he next had the honour of addressing the shareholders it would be to congratulate them upon the realisation of satisfactory and tangible results. (Hear, hear.)

The meeting was represented by more than 11,000 shares.

The proceedings then terminated.

RICHMOND CONSOLIDATED MINING COMPANY.

An extraordinary general meeting of the shareholders was held at the Cannon-street Hotel, on Wednesday, to receive the report of the board as to which of the recommendations of the committee they had carried out, and their reasons for having deferred action on the remainder, if any; and to receive and take into consideration the reply of Mr. Edward Probert to the report of the late committee of investigation.

Mr GEORGE HOPKINS (the Chairman of the company) occupied the chair.

Mr. HUBERT AKERS (the secretary) read the notice convening the meeting.

The CHAIRMAN: Gentlemen, most of you are aware that for the last three months I have been suffering from a very severe illness, and have not during that time been able to attend to business of any description whatever. I have not, as a matter of course, been able to attend any of the board meetings of the Richmond Company from the latter part of July until yesterday; but although I had not fully regained my strength, I thought the business which we are called together to transact to-day was of such importance that I determined, if possible, I would be present to-day. (Hear, hear.) The first business that we have to attend to is the report of the directors as to which of the recommendations of the committee they had carried out, and I need not say very much upon these points, because you have all had a printed copy of the report issued by the directors on Nov. 5. You will have noticed in the last paragraph that out of consideration to my absence, in consequence of my illness, they have deferred taking a great many of those recommendations into their consideration. They have adopted some, and I think it is only right and necessary that I should say that this report does not quite give the full extent to which those recommendations have been adopted. You will remember that in July we had a good deal of discussion as to whether the report of the committee of investigation should be received and adopted, or whether it should be only received; and it was only after a good deal of consideration and communication with the members of the committee that a resolution was agreed to amongst us all by which no action was to be taken until Mr. Probert had an opportunity of making a reply to that report. (Hear, hear.) I was a little surprised, I must confess, in the face of that agreement—that agreed resolution which was come to in good faith by all parties, that at the second meeting which Mr. Pulbrook attended he thought it right and proper to lay before his co-directors a series of resolutions, which, to some extent, were intended to carry out a portion of recommendations one, two, and three, and which, as I understood the resolution, it was distinctly agreed should not be carried out until such time as we had Mr. Probert before us. (Applause.) Mr. Broughton and Mr. Schultz protested against these resolutions, and I am glad to say the other members of the board under these circumstances did not support Mr. Pulbrook, and the matter fell to the ground; but not entirely so, for a short time after the board passed a resolution withdrawing the proxy from Mr. Probert, which, if you have the report before you, you will see, or at all events you will remember, is an essential part of the first recommendation of the committee. Now, I think that action was, to say the least, unfortunate, because it was unnecessary. Mr. Probert had either started from Eureka or was about to start very shortly, and, therefore, even if he had been disposed to make any ill use of his proxy—as has been very invidiously suggested—he would have been quite unable to make any use of it whatever. The board thought it advisable to do that, and I think it a pity, as it could be of no practical use whatever, and to that extent it was carrying out a portion of recommendation No. 1, which we had all agreed should not be carried out until after we had got Mr. Probert's reply. Now, I do not think I need say anything more than that, because the report of the directors speaks for itself. The next point is that we are to receive and take into consideration the reply of Mr. Probert to the report of the late committee of investigation. Well now, you have all I presume had, or ought to have had, a copy of this reply before you for the last week. I hope, and I have no doubt, you have all read it very carefully, and not only read it carefully but I hope you have studied it and compared it with the report of the committee. I have gone through it myself very carefully, and have made my notes on each heading and each sub section, but as we have the pleasure of seeing Mr. Probert here in person—(applause)—and we have not had the pleasure of seeing him for I think something like five years, I do not intend to occupy your time in going through the report in detail. I will only say this, as I think I am bound to say from the position I hold, that having read that report very carefully I have myself, whatever others may have done, come to the conclusion that the allegations, so far as they have been dealt with, contained in the report of the committee have been most completely answered by Mr. Probert. (Loud cheers.) Now, true, in order to support his case, Mr. Probert has introduced a great many letters from Mr. Rickard and Mr. Morrison, and in consequence of a circular which has been very recently sent out by Col. Steuart, Dr. Maybury, and Mr. Pulbrook, no doubt a great deal of the weight of these letters signed by Mr. Rickard and Mr. Morrison is taken away. (Hear, hear.) I regret to think that we have in our service persons who are capable of saying one thing to the committee and another thing to Mr. Probert, so that amongst the conflicting evidence one really hardly knows what is true and what is not the truth. (Hear, hear.) But there is no doubt of this—that this reply contains a great many extracts from our books—extracts of figures—which I can but believe must be correct. However weak Messrs. Rickard and Morrison may have been, th se extracts which are sent over and which are in the office now, and anyone can verify for themselves, surely these figures cannot have been doctored for the mere purpose of bolstering up Mr. Probert's reply. I do not believe that; I think there is truth in their figures, and there is no doubt that, taking them as true, apart from anything else Mr. Probert has stated, they do throw a very different light upon matters which are referred to in the report. I will just mention this, that having been a member of the committee of investigation, and having attended very closely to the preparation of that report, that during its preparation I was perfectly astonished at the information brought home by the sub committee. I had always had the greatest faith in Mr. Probert. I believed most implicitly both in his integrity and honour, and also in his ability, but when these statements were laid before us one after another I was astonished, and said to the rest of the committee—"Well, gentlemen, I cannot make it out. It is no use my attempting to defend Mr. Probert in his absence, because I cannot do it. He himself is the only person who can answer these allegations;" and that is the reason why I fought, and fought so strenuously, that before any action should be taken on that report Mr. Probert should have an opportunity, and should be asked to come over here and give his explanation *in propria persona*. Now that I have read his reply I am equally astonished to think that so much wrong information should have been given to the committee. I do not attribute any blame to the committee themselves. (Oh, oh.) I have no doubt they collected their information as best they could, but when we see men who have been in the employ of the company for years, and those who are brought in especially to aid and assist the committee, making such eggregious blunders—what can you wonder at? I refer to Mr. Eller's statements, which are most inaccurate. Take for one instance his statement of the measure of the hydrocycles. He says they are 3 ft., when the fact is that they are double that height. This is not a mere matter of opinion, because the hydrocycles were standing still when he was there (which is the complaint), and he could have put a measure across and ascertained what the size was, and not have misled the committee, and through the committee the shareholders, in the way he has done. As I said at first, I do not intend to go through the report in detail. I have said generally what my opinion of the matter is. I think as regards this last answer of the committee, although it does bear the opinion of counsel—that those letters ought to be published—that there was no necessity for publishing them. I think letters obtained as these letters were, in a surreptitious manner, would have been far better put into the fire than published in that way.

Mr. S. BAYLISS: I deny that they were obtained in a surreptitious manner.

The CHAIRMAN: I am not myself a freemason, but I daresay there are many here, and I say these letters were obtained on the "mystic square." To my mind it is a debasement of the honourable character of masonry to attempt to shelter this thing on the plea of masonry in the obtaining of these letters. (Hear, hear.)

Mr. POWELL (the secretary of the late committee): I deny that they were obtained surreptitiously. ("Order, and interruption.)

A SHAREHOLDER asked if Mr. Powell was a registered shareholder of the company?——Mr. WELLINGTON VALLANCE (the solicitor) replied that Mr. Powell was not a shareholder, and must not interrupt the Chairman. (Cries of "Turn him out.")

The CHAIRMAN: As some of the letters have been published I shall ask Col. Steuart to hand the original letters to the secretary of our company, that they may be kept in our office for future reference, and that Mr. Powell be requested to supplement these letters by furnishing copies of the letters he wrote to Messrs. Morrison and Rickard. With these few remarks I beg leave to introduce Mr. Probert to your notice. Many of you gentlemen here know him, but he has not been here for five or six years. (Cheers.)

A SHAREHOLDER suggested that Mr. Powell, or any other gentleman present not being a shareholder, should be requested to withdraw. (Hear, hear.)

Mr. S. BAYLISS explained that Mr. Powell was the secretary of the commission, and as his conduct was attacked he thought it right that he should be allowed to remain to answer any questions. (No, no.)

Mr. B BROUGHTON remarked that the committee was no longer in existence, and could have no *locus standi* at the meeting.

After a short discussion a motion was adopted, at the suggestion of Mr. S. POPE, Q.C., requesting Mr. Powell to withdraw from the meeting, which that gentleman did, amidst cries of "Good morning," "Mind the step," &c.

Mr. EDWARD PROBERT, who was received with loud and prolonged cheering, said that ever since he received at San Francisco that voluminous indictment, the report of the committee of investigation, in the latter end of July, he had been burning to meet the shareholders, and had been oppressed besides with a sense of the wrong which had been done him. (Cheers.) He had asked himself was it possible that any person who had known him in early life, or before he went to the United States five years ago, could believe for one moment that 100th part of the contents of these two or three pages under the head of general management could be true of him. (Hear.) For himself he had wondered—wondered asking himself this question—"Is it possible that I have become so demoralised during these few years that I do not understand the nature of my own acts, that I have made myself a *thing*, that I have lost all my self respect?" He could tell the shareholders, on his honour, that there was nothing in that indictment which he had to plead guilty to. He would defend himself and meet those allegations in any order they liked, with proper documentary evidence, and not with letters of treacherous employees. That voluminous indictment had been planned with so much wicked skill as almost to impose upon his best and most intimate friends, and if the shareholders had not been imposed upon he was surprised at it, and he marvelled at their forbearance, he would say at their generosity, that they did not yield to the clamour of the committee and condemn him in his absence. (No, no.) If he had been guilty of one hundredth part of the charges brought against him he should be unfitted not only to control the interests of this company, but to meet in the society of honourable men and move amongst them, and he owed it to the instinctive love of justice and fair play which he had always held to be the characteristics of his countrymen, and to the action of earnest friends who knew him personally, that he had not been condemned in default. He had, as he had said, been burning to meet them, and nothing but the interests of the company would have kept him so long on the other side of the Atlantic. They did not know what he had to tell them on that subject. He did not know that it would be possible to communicate to them to-day all he had to say on that point, but sooner or later the shareholders should know it. He knew very well that by leaving his post earlier he should be playing into the hands of the enemies of the company and his own enemies on both sides of the Atlantic, and in defiance of the advice of his friends he stayed there, guarding the interest of the company, and leaving his own reputation to take care of itself, but now that he was back he would answer for that. (Cheers.) He would try to avoid hard words, but he would tell them before hand that he would deal hard blows instead. (Cheers.) Now, he began by asking them to enquire a little into the history of the appointment of the committee. Did that committee come into existence spontaneously at the wish of the shareholders—(no, no)—but was it not forced upon the body of the shareholders by the action of a few discontented spirits, he would not impute other motives to them? (Cheers.) The movement gathered strength as it went on, and the members of the committee had personal interests, which he would endeavour to expose, and to show them something of the constitution of the committee. The persons on that committee were not selected, but elected themselves to go out there to be his investigators. The name of one of the members of the committee was Mr. J. Bayliss; he did not know whether that gentleman was present? (No)

Mr. POPE, Q.C.: He has sold his shares Mr. Probert. (Oh, oh, and laughter.)

Mr. PROBERT said that under those circumstances he would leave that gentleman out. Taking the names in alphabetical order, he would next refer to Mr. Samuel Bayliss. He had nothing to say against Mr. Samuel Bayliss beyond this, that he was the mere echo of Mr. John Bayliss. At Eureka he found Mr. Samuel Bayliss the mere echo of his brother—Mr. John Bayliss—and, therefore, he wished to say no more about him. (A laugh.) He would now pass on to Mr. Pulbrook. (A laugh.) By the way, some people had called Mr. Pulbrook his friend, but he had never authorised that gentleman to call himself his friend. (A laugh.) He had never known Mr. Pulbrook as his friend; he had known Mr. Pulbrook some years since as a man of business, and Mr. Pulbrook had transacted some little business for him, and he thought him clever, and he supposed the shareholders considered Mr. Pulbrook a clever lawyer. His opinion was that Mr. Pulbrook was what they called in the United States a "smart man," and that was the word which just expressed the amount of cleverness which Mr. Pulbrook possessed. (Cheers and laughter.) Now, he wished to call the attention of the shareholders to some early correspondence with Mr. Pulbrook; but before he did so perhaps they would allow him to say that he did not consider it quite honourable on the part of a man to take another man's letters and read them in public, even if they had not "private and confidential" marked upon them. But his own letters had been so used in his absence, and if he retaliated a little in the same manner he could assure them that it was exceptional conduct on his part, and he should not be guilty except under the pressure of the circumstances, but he was bound to do it in this instance. (Cheers.) Now, he had told them that Mr. Pulbrook had a personal interest in this affair; Col. Steuart, he believed, had a personal interest; and unquestionably Mr. Brereton had a personal interest to serve. And those were the gentlemen who came out to investigate his mismanagement and his "pickings"—he supposed they called them—from the company's property, and to see what he had made out of the company indirectly. (A laugh.) But had they found a dollar missing? (Cheers.) Had they dared to say so? (Loud cheers.) The committee went out to accumulate the dirt which they had since thrown at him, but they had not dared to make such a charge as that against him. (Cheers.) No; this company was perhaps the only English company on the other side of the Atlantic of which it could be said that not a dollar was found missing. (Hear, hear.) Well, Mr. Brereton came out in the early part of 1876, with the object of becoming manager of the property if he could satisfy him (Mr. Probert) that he was fitted for the post. As he understood the worthy Chairman, Mr. Brereton's appointment was altogether of the nature of a conditional appointment. He confessed he could not, for many reasons, endorse the appointment of Mr. Brereton. He would not go into these reasons now, but Mr. Brereton had had a grievance against the Richmond Company ever since, and had covertly done himself (Mr. Probert) and the company great mischief, as he would prove. As regarded Col. Steuart, he had no personal acquaintance with that gentleman till he came to Eureka, but in very early times in the history of the company Col. Steuart sent out to him, through the Chairman, a letter of introduction to a gentleman (which he never used) on the subject of an enterprise in which Col. Steuart was engaged—he believed a coal mine, and the manufacture of coke to be used by the Richmond Company. (A laugh.) He had nothing to say against that; but he wanted to point out that one of Col. Steuart's grievances was that he (Mr. Probert) would not use coke in the furnaces; therefore Col. Steuart was not free from the suspicion of having a personal interest. He believed that Mr. Brereton was also, in some things, the agent of Col. Steuart over there, and in other respects they had a common interest, so they might look upon those two gentlemen as one. Then, again, Mr. Pulbrook had a personal interest, as he would show them, because Mr. Pulbrook volunteered to become manager.

Mr. PULBROOK: I am not competent for that position, Mr. Probert.

Mr. PROBERT said he had a very interesting letter from Mr. Pulbrook, which was not marked "private and confidential," and, therefore, it would be no breach of confidence to read it. This letter of Mr. Pulbrook's to him (Mr. Probert) was dated Feb. 8, 1877, and was as follows:—"Whilst ruminating on things in general the other evening—(laughter)—it struck me who was to take your place when you left. Rickard has not the capacity to undertake the general management, in a commercial sense, of so great an undertaking, and as I am very anxious to get out of the law—(a laugh)—and take up with something more congenial to my tastes, I thought whether I should be fitted to become the general superintendent when you left, and if so I would consider seriously whether I would not accept that position, provided they paid me the same salary that Rickard had originally, and if for the first two or three months I had the benefit of your instructions whether I might not, and gain by your experience. (Loud laughter.) If you think I should be unsuited for the work tell me so at once. For various reasons I want to make a change. I thought it might be a mutual opening for both parties, as I believe the mine will last for some years, and with two good men like Rickard and Potts, who have both been selected by yourself, I could get on very well, having that which they fail in—general commercial experience and power of management. I have not mentioned this to anybody except you, as I thought you would be the proper person to mention it to, and knowing perfectly well that if you thought it undesirable you would at once say so." Well, he did at once say so, and his reply to Mr. Pulbrook being that he had already refused to endorse the appointment of a better man, and could not, in conscience, second such an application on the part of Mr. Pulbrook. (Cheers.) In the conclusion of his letter Mr. Pulbrook said: "If I am endeavouring to get up a combination to give the 'bears' a turn, and I hope I shall succeed." (Loud expressions of disapprobation, and roars of laughter.) He must read them a little passage from a previous letter of Mr. Pulbrook, dated December 4, 1876, which showed that this project must have been incubating in that gentleman's mind for some time past. In that letter Mr. Pulbrook wrote: "You say, and no doubt rightly, that nine-tenths of the shareholders would not understand a description of the mine; but all public companies you must bear in mind require a certain amount of clap-trap to prevent the shareholders, in their ignorance, damaging their own property." (Oh! oh! and laughter.) Now he, Mr. Probert, had never given the shareholders clap-trap, which, as he understood it, meant "humbug"—(loud cheers)—but he had always endeavoured to give the shareholders the most accurate information in his power.

A SHAREHOLDER: Have you any more of those interesting letters, if so, let us have them? (A laugh.)

Mr. PROBERT said he was sorry he could not indulge them. There was a loud

of union and sympathy between all the gentlemen of the committee when they came out, which was that "Probert must go." That was the whole gist of it, but unfortunately the committee could not agree amongst themselves. Each had a satellite; Colonel Steuart had a satellite in Mr. Brereton; Mr. Pulbrook had a satellite in Mr. Powell, and they were both satellites of another gentleman, Mr. Cuthbert; and Mr. Pulbrook was to take charge of Mr. Powell, but Mr. Powell lost his chance by speaking too loudly in a light shanty made of cloth, and Mr. Pulbrook, who was standing near, heard his own character depicted by Mr. Powell. (Loud laughter.) But they were agreed about one thing, and that was that Mr. Probert was to go. He would not trust himself to speak too much on the matter, but would read extracts from letters which he had written to the Chairman during the time of his (Mr. Probert's) persecution out there, which would show exactly how the committee treated him from the first. The first letter he would read was dated October 1, 1877, which would show them the state of his feelings, and the cordial manner in which he was prepared to receive those gentlemen. Mr. Hopkins had written him a letter, speaking in the highest terms of the committee, saying it was a friendly committee, and not antagonistic, and he also received a letter from Mr. Pulbrook personally, in the same strain, preparing him for his arrival. He was in the most amiable frame of mind to receive the committee as it was not coming in any unfriendly spirit, but to aid and assist him in carrying out the administration, and to help him to economise. He, therefore, wrote to Mr. Hopkins: "I understand now perfectly the meaning of the appointment of the committee, and, as you are on it, I will receive the sub-committee when they arrive with all cordiality." He hoped at first the sub-committee would have come straight to San Francisco, and would have arrived at San Francisco in time to meet the company's counsel there, and discuss what were the chances of a successful appeal, he never heard a word of their arrival, except that Mr. Pulbrook had gone to Ottawa, which was a considerable way out of his course, and the rest of the party had started from New York, up the Hudson river, and they might have visited Salt Lake City for what he knew. All he knew was that Mr. Pulbrook went on a fishing excursion whilst he was anxiously expecting him in San Francisco, but the committee did not arrive, and the legal gentlemen were obliged to separate without any discussion taking place on the suit. Proceeding to read from his letter to the Chairman, and occasionally commenting thereon, Mr. Probert said that shortly after the arrival of the committee at Eureka he was compelled to write to Mr. Hopkins that the members of the committee were most unfit men for their task. They had selected Mr. Brereton as their mentor and guide. As regarded Mr. Pulbrook, he made a great mistake in mentioning his name to Mr. Hopkins, because after his arrival in Eureka he had shown himself most deficient in the qualities which fitted him for the post. Mr. Pulbrook met him in anything but a frank and friendly spirit, and never could look him straight in the face. As to Mr. Brereton, that gentleman considered that he (Mr. Probert) had stood in the way of his appointment to the management. On the first day after their arrival, when he was showing them over the works, Col. Steuart began to pour out his grievance, stating that he (Mr. Probert) had stood in the way of the company getting coke to use in the smelting furnaces, and that this had been done to protect the interests of the coal burners. Now, as a matter of fact, he had been the first to introduce the use of coke at Eureka, and therefore such a charge could not be brought against him. As the details of the management were approached the committee became more captious and fault-finding, and he had to be continually on the defensive. Mr. Brereton had prejudiced the minds of the committee against almost every person whom he (Mr. Probert) had placed in positions of trust, and particularly against George Lamaroux and Thomas Weathered, who held responsible subordinate posts, and whom he had always found loyal to the company. The committee formed themselves into a sort of Star chamber court, with Mr. Pulbrook as judge, and he (Mr. Probert) was actually requested to leave the room by that gentleman. Mr. Brereton was the instigator of this, having hunted up all the dissatisfied and discharged servants in the place. It was useless to go into all the miserable details of his intercourse with the committee. He felt the strain of their presence much more than he cared to allow, and felt quite worn out by the ingenious torturing he had undergone at their hands, and the multitude of enquiries which they had likewise addressed to him through Mr. Powell, the secretary, who generally required the answers in writing. When his information was given to the members of the committee *viva voce*, two or three pencils and note-books were at once busy taking down his replies, and those were reproduced without his knowing what they had written. In his letter to Mr. Hopkins he went on to say that he felt he had been treated with great indignity by the committee, for after having frankly replied to questions by the committee, those gentlemen had gone directly afterwards to his own subordinates, and put to them the identical questions which had been put to himself, as if to test his veracity. (Shame.) The committee, absolutely without mentioning the matter to him, engaged three experts; they had a perfect right to do this, but under all circumstances it would have been more courteous if they had first mentioned the matter to him (Hear, hear.) Those three experts were Mr. Hague, Mr. Plummer, and Mr. Eilers They could not have chosen a better man than Mr. Hague to report, but of Mr. Plummer nothing was known except that he was in charge of Mineral Hill—of luckless memory. As to Mr. Eilers, he had been engaged collecting statistics for Dr. Raymond's Journal, and was at present the superintendent of a rival establishment at Salt Lake. This, therefore, was not a person from whom to expect an unprejudiced report, and he protested against the appointment as soon as he heard of it. There was no doubt the appointment was due to Mr. Brereton's influence. Under Mr. Brereton's guidance the committee had started from New York, and visited refineries at Chicago, St. Louis, Omoha, and finally Salt Lake, where they "struck" Mr. Eilers, who certainly was not in his opinion the man to give an opinion upon extensive and complicated works; in fact, it was like employing a cabdriver to give an opinion upon a locomotive. The Chairman had stated at a general meeting that the board were prepared to stand or fall with Mr. Probert, and from that time he determined to stand or fall with the board, and if he thought the body of the shareholders was composed of such men as went to Eureka on the committee he certainly should have left Eureka at once, because, as he wrote to the Chairman, he should despise himself—and he asked them to mark the word—if he consented to serve such men as they. (Loud cheers.) After his return from San Francisco (where he had gone on the business of the company) to Eureka he heard a great deal more about the proceedings of the committee, and it convinced him more conclusively than ever that they were entirely in the hands of Mr. Brereton from the day of their arrival until the day of their departure. He had not been favoured by the committee with any of the conclusions they had arrived at, and he had no opportunity of testing the accuracy of any of the statements made by the experts to the committee. He wrote to the Chairman strongly protesting against any statements of the committee being made public till he (Mr Probert) had had an opportunity of examining the data and statistics on which they had founded the conclusions they had arrived at. He did not care to read a portion of his letters which reflected upon other persons, as he did not wish to mention names unnecessarily, but he had a word to say about Mr. Rickard. Mr. Rickard had shown a lukewarm disposition towards the refinery from the time of his failure in working it in 1875, and he wrote to the Chairman stating that he was not at all satisfied Mr. Rickard had not been a willing witness against the refinery, and had played into the hands of its enemies. He found Mr. Rickard to be very intimate with Mr. Pulbrook, with whom he claimed to have private business, and when Mr. Pulbrook left San Francisco for London Mr. Rickard went to the station, 90 miles off, to meet him, without mentioning the circumstances, until he (Mr. Probert) asked him by whose instructions he went. At San Francisco the committee spared no pains to hunt up information against himself from unfriendly sources, and amongst others even from Mr. Corrigan, who was interviewed by them, and according to public rumour Mr. Corrigan convinced them that all the litigation had been brought about through his not continuing to manage the Richmond affairs. (Loud laughter.) He should like to show the shareholders how they had suffered indirectly and directly, both in this country and out there, through the action of the committee. He stated deliberately that the interests of the company had been largely prejudiced through the action of the committee. The business secrets of the company had been exposed to he scarcely knew what extent, and documents had been published which might be used against them in the coming suit. All the assays of ore, and even the profits on smelting a certain sort of ore, had been exposed, and he did not know what the result would be, but he feared it. Was it a proper thing for gentlemen in the position of the committee to go and consult not with the company's own counsel but with the counsel of their opponents. (Shame.) If they had come straight to San Francisco, as they ought to have done, they would have found all the company's counsel awaiting them, but owing to the delay of the committee on the road all the counsel were scattered when they arrived, and could not be again got together to consult. As a matter of fact, the committee were preparing to attack him personally, and were not trying to promote the interests of the company. When the committee first arrived he gave instructions to Mr. Rickard to treat them with all respect, and show them everything they enquired for, but the action of those gentlemen soon gave him an insight into their characters.

A SHAREHOLDER: Have you not made a mistake in calling them gentlemen?

Mr. PROBERT said he would fulfil his promise, and not give hard words but hard blows. (Hear, hear). The legal interests of the company had been very much embarrassed by the action of these gentlemen, and the shareholders had not only lost the 6000*l.*, which had been paid the committee for their services, but six or seven times that amount.

A SHAREHOLDER: Make them refund. (Cheers).

Mr. PROBERT said his own action had been paralysed until he could ascertain whether the committee really represented the body of the shareholders or not. He had decided, among other things, to have an air-compressor to enable them to work drills, and push on the work of exploration faster, and to get below the ore body, but this seemed to be disapproved of by his censors. Again, he had decided to extend the Richmond flue, which he ventured to say had been the most productive work ever put up, and that would have been gone on with except for the arrival of the committee. He took the committee over the waterworks, and showed them the sources of the springs, and they had a map to assist them, but what were they to think of the competency of gentlemen who afterwards went and made east west, who put two springs where there was one, and made in the few hours they spent underground to make themselves acquainted with the three miles of drivings and winzes. These were a few of the matters which he might mention, and seeing the action these gentlemen were taking he said—"I will do nothing till I know what the shareholders have to say about it." (Cheers). He had been oppressed with a feeling of wrong, and his heart was full of bitterness.

A SHAREHOLDER: We are glad to see you. (Loud cheers).

Mr. PROBERT: I never could persuade myself you had really transferred your authority to those three gentlemen.

A SHAREHOLDER: Not likely.

Mr. PROBERT went on to complain of the unwarrantable way in which the letters of treacherous subordinates had been used by the committee. He assured the meeting on his honour as a gentleman that he had never used any threats to Mr. Rickard. He emphatically denied the statement that he had ever given a conject for coal verbally in his life; and referring to the kind of evidence which the committee had obtained in support of such statements, he remarked, amidst sneers and laughter, that he would not refer further to the subject, as a mouth full of tainted meat was enough, and they did not want to go through the whole animal. He referred at some length to his relations with Mr. Rickard, and said that Mr. Rickard had been removed from the post of manager in direct compliance with the desire of the board, as expressed in a letter written by the Chairman; and so far from being in any way hostile to Mr. Rickard, he had deeply sympathised with him, and had done his utmost to assist and help him forward in the subordinate position in which he was placed. (Cheers.) He reminded the shareholders of the circumstances under which he first went out. He went out with the one object in view, in the first instance, of building a refinery. About the same time the then manager, Mr. McGee, left the service of the company, and there was no one to take charge, and the board asked him (Mr. Probert) to discharge the functions of manager. He did not want to do it, but under the circumstances he accepted it, and at the same time built the refinery, and the amount which the directors paid him, without any request on his part, was the same they would have paid Mr. McGee. He proceeded to show that there was no truth in the statement of the committee that he was receiving large benefit from the working of the Rozan process; the company had one fourth interest in it, and Messrs. Luce and Rozan had an interest in it, and their interest must be protected as well as that of the company before he (Mr. Probert) could receive anything himself. He could only say that he would to-day place the company in the position in which he stood with regard to the Rozan process; would they accept it blindly, and free him from it? (No, no.) Referring to the report of the committee, he stigmatised it as a compilation of fallacies, of conclusions founded upon false data, and so misleading that the sooner it was consigned to the limbo of forgotten things the better for all. (Cheers.) There was not a statement in it which could not be challenged, and, with the exception of some tables which were taken from the office, there was absolutely nothing which could be relied upon. The atlas had been taken bodily from plans which he had himself prepared at Eureka, and ready to their hands, with the exception of one or two, which they could buy for a dollar, and the model which they took credit for was prepared at San Francisco by his own order, and sent to Eureka. In conclusion, he would say that he was willing to abide by the decision of the meeting. He could not be the knave the committee wished to make out, or they would have proved it. The committee were disappointed that, notwithstanding all their efforts, they could not make him out a thief. They "shadowed" him all the time they were there. They had spies appointed to watch him at Eureka, and those most disaffected towards the company were their informants and their constant associates. (Loud cries of Shame.) The same system was pursued at San Francisco, and after their departure he found they had not only been enquiring into the business of the company, but into his own private business and the details of his domestic life, and had even gone into Mr. Meyers' office and asked questions concerning his (Mr. Probert's) private life, which honourable gentlemen would have been ashamed to ask. (Loud cries of Shame.) From that charge, however, he exonerated Colonel Steuart.

Mr. PULBROOK: What do you say to me Mr. Probert? (Oh! oh! and laughter.)

Mr. PROBERT said he also exonerated Mr. Pulbrook, he thought Mr. Pulbrook had left at that time. If he had known all these matters at the time the gentleman to whom he referred would have had to account summarily to him before they left San Francisco. (Cheers.) He had learned something since he had been there, and no man should handle his reputation in that way without being made to suffer for it, as some would have to do yet. (Cheers.) He emphatically repudiated the charge of having speculated in the shares of the company, and said the fullest information as to the prospects and condition of the mine had always been sent straight to the office in London. He wanted to know whether the shareholders endorsed the action of those three gentlemen on the board in w thdrawing his proxy. (No, no.) He wanted them now to take up his quarrel, because he had a quarrel, and a very serious one, and he wanted them to take out of his heart the bitterness which had been there so long. He had been living under a sense of burning wrong for months and months, and he asked them now to put an end to it.

Mr. PROBERT resumed his seat amidst loud and continued cheering.

Mr. S. POPE, Q.C.: Gentlemen, it is my intention to submit to this meeting with a very few observations a resolution which I trust will be satisfactory to the meeting, and I am sure it will be to Mr. Probert. I will read the resolution to you. It is—"That this meeting having received and considered the reply of Mr. Edward Probert to the report of the late committee of investigation, and having heard the personal statement which he has now made, is of opinion that he has satisfactorily answered and disproved the charges and allegations brought against him by the committee—(loud cheers)—and that he is entitled to the continued confidence and support of the shareholders—(hear, hear)—and to this expression of their approval of his conduct and management of the affairs of the company at Eureka." (Cheers.) Now, sir, I do not hesitate to say that I should desire if possible that this resolution should be passed unanimously. I know that it has the support of a very large proportion of those who are really interested in the Richmond Company. (Hear, hear.) Suffice it, so far as any observations of mine are concerned, to say that having read carefully Mr. Probert's reply, having compared it carefully with the allegations of the committee, and having also considered that which the committee had subsequently advanced, and Mr. Probert's statement to-day, so far as consideration has been possible, I have come to the conclusion that as a matter of evidence Mr. Probert's case is satisfactorily made out. (Applause.) But if it were necessary to deal with a case upon which any mind entertained any doubt I should decline to accept the testimony of gentlemen who have acted towards us in the way in which the late committee and their supporters have acted since I last addressed you. (Applause.) I can quite believe that they went to Eureka in a spirit of determined hostility to Mr. Probert, because, notwithstanding their solemn engagement to myself and others, they have pursued that system since our last assembly. (Hear, hear.) I am quite prepared to suppose that the gentlemen who can quote evidence and can misquote it, and alter the word "seems" into the word "is" in a letter, or suppress and garble other extracts, may not feel particularly surprised that those who are accustomed to deal with evidence reject their testimony as being unworthy. (Applause) But let me just recall to your recollections the events of the last three months. (Hear, hear.) Put aside, if you like, all that took place in connection with the appointment of the committee of investigation, the long and laboured preparation of their report, and our meeting when we voted them an additional sum of money expressly on the ground—not that we approved of the conclusions of their report, but that we had employed them to do a certain work, and that we were willing that they should be paid for it. It is in your recollection, gentlemen, that when the report came to us for consideration at first (a mere accident brought me for the first time to any meeting of the Richmond Company) I could not bring myself to believe that any number of gentlemen would condemn Mr. Probert (whom I had never seen, and have never seen till this morning), or any gentleman unheard in his own defence. (Hear, hear.) You will remember that it was in consequence of the strenuous efforts that I, in connection with other shareholders of the Richmond Company, put forth that we succeeded in inducing an agreement between all parties, by which a resolution was passed which suspended all judgment in reference to Mr. Probert and, of course, all action in reference to Mr. Probert—(hear, hear)—until that gentleman had an opportunity of attending here to make his own explanations. (Applause.) I am bound to say that that report of the committee impressed me to an extent which made me think, not knowing anything about Mr. Probert, that it was unlikely that he would turn up. (Laughter.) You may remember that I was asked by, I think, Mr. Cuthbert what course I would take if Mr. Probert did not come? I said, "If he does not come to defend himself when he had an opportunity we must proceed in his absence;" but I did not expect to find that these gentlemen, in face of that solemn agreement with myself and others that matters should remain in abeyance, would devote themselves through the press, in the share market, and in every possible way to destroy the property before we had an opportunity of hearing what Mr. Probert had to say. ("Shame.") I do not say that Mr. John Bayliss did anything which in his own consciousness he recognises as wrong or dishonourable—(Oh! oh!)—but I do say that he must have been eaten up with an inordinate vanity greater than anything I have ever seen or heard in public in connection with enterprises of this kind. (Hear, hear.) It was by that agreement that we bound ourselves, for we held, in consequence of that action, a sufficient number of proxies, and the committee had received a sufficient number of recalls of the authority given to them to make it at least a very doubtful question if we had stood upon our absolute legal position whether or not we had at that time a majority of the shareholders with us—(hear, hear)—but in consultation with the gentlemen of the committee, as I said here at the second meeting, I thought it advisable that we should act as far as possible in good faith towards each other, maintaining the agreement which was come to—that we would pronounse no opinion nor do anything until we had Mr. Probert's reply. Well, now then, what do we find? I am glad to think—though I do not know that I agree with Mr. Pulbrook in much—I am, I say, glad to think that a member of my own profession did not sanction such an absurd course. Why, we actually found Mr. Bayliss and Mr. Brereton (the gentleman who had our money in his pocket for the preparation of the report) endeavouring to destroy our company by saying we have no title to the property, and endeavouring to show that what we held was a sham. (Applause.) I do think that any gentleman connected with the committee who were parties to the agreement come to that all should be in abeyance were guilty of a dishonourable breach of agreement. (Hear, hear.) It would seem as if they penned it for the purpose of diminishing the prospects of the company, and buying back the shares which they had sold at a high price, because of the confidence that the action had given to the public in the company itself. It is hardly worth while, feeling as I do, indignant at the course they thought it right to take during the past three months, feeling that we were sold in the agreement—(hear, hear)—and if somebody had not had the courage to stand by their shares in the company in the state to which it was reduced for a short period we might all of us have suffered not only serious loss of prospects, but serious loss in the actual value of the property of which we were the holders. In that view, therefore, if I thought the report of the committee the most valuable in the world I should say the committee are not the people to carry it out—let us have a united board of directors—(applause)—in whom we should have confidence, who will (and I say it in Mr. Probert's presence) if they lose confidence in Mr. Probert not hesitate to say so, and withdraw from him the credentials they placed in his hands; but at least let Mr. Probert have the opportunity of dealing with men with whom faith can be kept—(applause)—and then we should, at all events, know that our property is being managed, if not perhaps with all the astuteness that a mining lawyer—(laughter)—might bring to bear upon it; nevertheless, with a certain amount of commercial ability, and in such a way as to entitle those who manage it to our confidence. (Applause.) That is pretty much my view, I confess, of the situation. If the matter had stood where it was when we met last, it might, perhaps, have been worth while to make more speeches to discuss the thing and talk it out; but, as far as I am concerned, I do not want to make any more speeches. I do not want this thing to last; the sooner it is put an end to the better. (Hear, hear.) As one of our friends said on the last occasion, "Now, let us try, if you please, do not let us talk about, let us vote about it;" that will settle this matter, as it will be the opinion of the shareholders themselves. Col. Steuart said on the last occasion, and I have not the least reason to doubt that that is his view, that if the result of the whole of these investigations and experiences of the last three months is that the shareholders of the Richmond Mine continue their confidence in Mr. Probert, he fee's that a seat at the board would not be consistent with his feelings, and would not hold it.

Col. STEUART: I am quite prepared with my resignation.

Mr. POPE: I was quite prepared for that. I should entirely desire to endorse what I saw in a paragraph in one of the mining papers—for I have read more mining journals during the last two months than I ever read before in my life, or ever hope to read again, for they do not seem to be very high in their literary merit except for the special interests that surround them. I desire to endorse what the *Mining Journal* said in dealing with this matter, that it is very desirable we should deal with it without personal feeling towards those on the board. I have mentioned Col. Steuart, but I have not seen a word from him in the press myself since the last meeting, therefore, what I have said with regard to any breach of understanding does not apply to him personally; but I should desire if possible to give an unmistakable expression of the opinion of the shareholders, that the proper policy is to support Mr. Probert under the control of a united board in which we all have confidence.

Dr. MAYBURY: Allow me to interrupt for a moment. Does not that apply to me in the same way as to Col. Steuart?—Mr. POPE: I have not seen any communication from Dr. Maybury. (A Voice: They are all in the same boat.)

Dr. MAYBURY: Does your remark apply to me?

Mr. POPE: Not at all. I am exceedingly glad to notice that the members of the late committee sitting at the board are anxious to disassociate themselves with the members of the late committee who are not on the board—(laughter)—but that which I should desire to put briefly is this—instead of making personal statements, or withdrawing individual members from censure, we could adopt that policy without involving any charge against personal honour or integrity of any gentleman whose resignation may be the result of—(hear, hear)—the policy which it seems to me the events of the past two or three months would justify, after reading the report and the reply is this—let the shareholders continue their confidence in Mr. Probert, but let him so long as he holds an official position in the company be under the control of a united board of directors, in whom the whole of the shareholders may have confidence. (Applause.) I beg, therefore, Mr. Chairman, to move this resolution, which will if carried, I take it, end the matter. (Applause.)

The Hon. RANDOLPH STEWART begged to second the resolution so ably moved by Mr. Pope, and in doing so thought it only right that he should state the reasons why he had taken a somewhat prominent part in discussing the affairs of the company. In the first place, he felt it his duty, as an Englishman, and of everyone, to give a chance to the accused to be heard in his defence. (Hear, hear.) Another reason for the course he had adopted was, he was largely interested both for himself and his friends in the success of their property. He cordially endorsed every word that had fallen from Mr. Pope in proposing the resolution, which he had much pleasure in seconding.

Mr. PULBROOK attempted to address the meeting, and was met with loud cries of "sit down" and "vote."

Mr. B. BROUGHTON desired to say that it was his intention to exercise his right as a shareholder to vote upon this question. (Hear, hear.) It had been charged against him that he had been a partisan of Mr. Probert's, and he pleaded guilty if being a partisan meant that he would not consent or be a party to an act of injustice to an absent man. (Hear, hear.) Throughout this unfortunate agitation he had always taken his stand on the broad ground that it was unmanly, and contrary to English ideas of right and justice, that a man should be condemned in his absence. He had always said that if Mr. Probert should not succeed in disproving to the satisfaction of the shareholders the charges that had been brought against him he would be amongst the first to say to him—"You have failed to make good your case; you have forfeited the confidence of the shareholders, and it is your duty to retire." (Hear, hear.) He had carefully studied the report of the committee and Mr. Probert's reply, and he was bound to say that he had the fullest confidence in that gentleman. For that reason he had much pleasure in supporting the resolution.

Mr. PULBROOK again attempted to address the meeting, but was received with reiterated cries of "sit down."

Col. STEUART wished to make a few remarks in explanation of the allegations which had been made against him by Mr. Probert. (Hear, hear, and no, no, and "send them by post.") Notwithstanding all that Mr. Probert had said, he believed every word that he had written in the report to which he had attached his name, and that that report was substantially correct. (No, no.) He regretted that much of the correspondence which he had himself copied had not been printed, for had it been some of the remarks of Mr. Probert would have lost a good deal of their force. (No, no.) It had been stated that he had an object in desiring that the company should use coke, but what he had always desired was to maintain and secure the success of the company. He had mentioned coke because he believed it would be beneficial to their operations, and reduce their expenses, and the best coke he then knew was that supplied by the company in which he admitted he had an interest. (Laughter, and oh, oh.) His interest in the Richmond Company was, however, much greater than in the coke company, and as soon as he found that English coke was superior to that which the local company could supply, he ceased to recommend the Colorado coke. (Laughter, and "time,") As to the statement that Mr. Probert was excluded from listening to the examination of certain of the officials, the reason that that was done was that it was ascertained that the officials were in terror, and would not speak openly if Mr. Probert were in the room. (No, no.) He denied that Mr. Eilers was engaged on Mr. Brereton's recommendation; he was engaged because he was the best man they could find. (Oh, oh.) He also denied that he had ever asked Mr. Rickard to keep back certain information, and as to the refinery into which Mr. Probert was willing to place money, he was quite sure that the Americans would not build a refinery to carry out the Rozan process. (Question.) So far as he was concerned, he also most strongly denied that he knew anything of spies being engaged to watch Mr. Probert, and in conclusion Colonel Steuart handed in his resignation, remarking that he joined the board against his will.

The CHAIRMAN then put the motion, which was carried, the only dissentients being Colonel Steuart, Mr. Bayliss, and Mr. Pulbrook (the three members of the sub-committee) who were groaned at.

Mr. PULBROOK, after several ineffectual attempts to make himself heard, was understood to remark that the members of the committee, if they had the opportunity, could expose the fallacies contained in Mr. Probert's reply. It was, of course, for the majority of the shareholders to express their views, and they had done so. He could only say that after the vote of confidence being passed without any enquiry, he certainly could not remain on the board—(loud laughter)—and, therefore, he begged to tender his resignation.

Mr. WELLINGTON VALLANCE said Mr. Pulbrook's letter of resignation contained some prefatory remarks, and he advised the Chairman that it should not be accepted. (A Shareholder: Turn them out by vote.)

Dr. MAYBURY, who was frequently interrupted, said the affairs of the company last year were at zero, and the shareholders were all trembling for its fate.

The CHAIRMAN: That is not so.

Dr. MAYBURY maintained that he was speaking the facts, and it was to see what could be done for the company that he joined the committee, of which the Chairman was a member, and for the actions of which the Chairman was equally responsible, for he (Dr. Maybury) was not one of the sub-committee who went to Eureka. Dr. Maybury then proceeded to detail the circumstances under which he became a member of the board, and denied that so far as he was concerned he had committed any breach of agreement. Dr. Maybury also tendered his resignation.

Mr. POPE, Q.C., moved that the resignations of the three gentlemen should be accepted.

Mr. J. P. BRIDGWATER seconded the motion, as he thought the shareholders would consult their own dignity by carrying it in preference to removing the three directors by vote.—The motion was carried *nem. dis.*

Some discussion ensued, in which Messrs. J. P. Bridgwater, J. C. Bolton, and Ray took part as to whether the names of certain gentlemen eligible for election as directors should be submitted to the meeting, or whether the choice should be left with the board. It was ultimately decided that the latter course should be adopted, and the subject then dropped.

The Hon. RANDOLPH STEWART proposed a cordial vote of thanks to the Chairman for having come from a considerable distance to preside over the meeting, and congratulated the Chairman on his recovery from illness.

The proposition was carried by acclamation.

Mr. PROBERT, in acknowledging the compliment passed in his favour, said he wished to convey his cordial thanks to the shareholders for the kind manner in which they had expressed their confidence in him. He expected no less from them, because he was conscious of right. (Loud cheers.)

The CHAIRMAN said that he was much obliged for the vote of thanks. He was pleased beyond measure that Mr. Probert had come over and met so successfully the grave allegations which were made against him. He thought Mr. Probert's statement was a most satisfactory one. (Cheers.) So far as he was himself concerned his services were always at the disposal of the shareholders. He believed the company had a great future before it, and that they would all look back with satisfaction to the proceedings at that meeting. (Cheers.)

The proceedings then terminated.

WEST BASSET MINING COMPANY.

A meeting of shareholders was held at the mine on Tuesday, Mr. J. CLAUDE DAUBUZ presiding. The accounts showed a total balance against the mine of 4697*l.* 10s. 11d.

The agents stated that a contract with Messrs. Henderson, of Truro, has been entered into to drive 100 fms. of levels with the Eclipse rock-drill, at a price of 10*l.* per fm. The contractors provide all the machinery and plant required. It is expected that the drill will commence working before the meeting. The mine, on the whole, never looked better than at present, and had not tin been so extremely low in price good profits would be made. The stopes throughout the mine are worth on an average 11*l.* per fm.

The CHAIRMAN stated that the loss on the three months' working was over 276*l.* They were disappointed at that, because at the last meeting hopes were held out that with the then price of tin they would be able to pay costs.

Mr. WOOLCOCK said that if the price of tin had even remained at 32*l.* 15s. a ton, they would have paid costs, and had about 50*l.* to the good, but unfortunately the market had gone against them. However, they must hope for better times again, as the price of tin seemed to be advancing.

Capt. NICHOLAS said that in the report that had been issued a week or two since it was stated that the 164, west of Grenville's shaft, was worth 15*l.* a fathom, and he was now able to state that it was worth double the amount per fathom. (Hear, hear.) He further stated that they might now consider that the mine was in a very fair state as far as working was concerned. All obstacles had been overcome, and they were raising tin at a less cost than formerly. They could pay costs and a little more with the present price of tin. (Hear.)

Mr. W. D. BAIN, in giving some particulars of more than a century back about tin mining in Cornwall, said history seemed to repeat itself, for he found by an old book lent him by a friend that in 1774 the price of tin was lower than it had gone during the past twelve months. He then proceeded to state that at that time they were then suffering so severely from depression in the tin market a movement was got up to export the surplus Cornish tin, amounting to 600 tons per year. Arrangements were then made with the East India Company by which this surplus quantity was exported to China. It might be interesting to know to what purpose this tin was put, and he found, although they should not support idolatry, but sometimes the means would justify the end, that the Chinese rolled out the tin very thin, spread it over paper, and as a dedication to the gods they burnt it—(laughter)—consequently a large quantity of tin was consumed. He then pointed out that in those times the price of tin was usually 8*l.* a ton more in time of peace than in time of war, and he, therefore, thought they should join with their Birmingham friends in wishing for peace.

CAPE DIAMONDS.—In last week's Journal it was mentioned that the large diamond recently found at the Dutoitspan Mine, in South Africa, was picked from a claim belonging to Capt. Jones. The

stone, it appears, was found in one of Mr. J. S. Gordon's claims, which are superintended by Capt. Jones; it weighs 246 carats, and although smaller than the Spalding diamond in the rough, will cut into a much larger one, and is of far superior quality.

THE SCOTCH MINING SHARE MARKET—WEEKLY REPORT AND LIST OF PRICES.

During the past week markets have shown an improving tendency, but business has been somewhat restricted by the intervening fortnightly settlement, and particulars of the business done on continuation-day are given below. The current account is for settlement Nov. 29, and though business is still quiet, what is doing is daily of a more *bona fide* character. In a time like the present, of doubt and alarm, only responsible parties can operate, hence markets are becoming stronger. The depression in trade seems rather to have increased, so it is to be hoped that the prognostications on Saturday last by the Chancellor of the Exchequer that political affairs are now so encouraging as to be likely to give commerce at last the favourable turn, will prove correct; at any rate, the want of confidence has been greatly owing to the uncertainty as to whether or not peace was really to be established by the Treaty of Berlin; and, according to the information now afforded on this point by the Premier, as well as a most satisfactory note from the Emperor of Russia, this difficulty seems to be in a fair way of being disposed of, and after it all others would be easy enough arranged. Thus with the better appearance of politics, and the money market tending easier, the long-looked for revival of trade is only wanted to increase business wonderfully.

In shares of coal and iron companies a good amount of business has been done. Though these trades are in a state of almost unexampled depression there can be no doubt they will recover by-and-bye. In the meantime many coal and iron works are being carried on at a loss, and only when their capital is exhausted and maturing engagements unable to be met will this unsound production be restricted, and the business left to the stronger hands, who will then be able to return prices again to remunerative points. When these trades do recover it is probable fortunes will again be realised in an incredibly short time. It is to be hoped manufacturers and others will reap the benefit of this time of cheap coal and iron, for it is "an ill wind that blows nobody good." The chief fluctuations have been in Benhar shares, but most of the others are out of favour for the present. Benhar shares, which commenced this week at 45s., improved to 52s., but on the announcement of the suspension, which is fully referred to below, suddenly dropped to 15s. They afterwards recovered to 25s., but are now a little lower again. The other alterations are advantages of 3s. 9d. on Glasgow Port Washington, and 2s. 6d. on Scottish Australian. On the other hand, Arniston have fallen 20s., Lochore and Capledrae 15s., and Bolckow, Vaughan (A) 5s. Andrew Knowles and Sons are at 8 dis.; Bolckow Vaughan (A), 52¼ to 52¾; ditto B. 33½; Cardiff and Swansea, 7s; Chillington, 55s. to 60s.; Ebbw Vale, 5 to 5½; Great Western, 40s.; John Brown and Co., 15 dis.; New British, 80s.; Newport Abercarn, 90s.; Rhymney, 14½; Scottish Australian, 30s. to 35s.; Sheepbridge (new), 7¾; Silkstone and Dodworth, 29 dis.; Staveley (A), 2 dis.; ditto B, 25s. prem.; ditto C, 64; South Wales, 70s.; Tredegar A, 10½; West Mostyn (pref.), 17s.; Whittington Silkstone, 6½ dis.

In shares of foreign copper companies Tharsis have steadily improved all the week, and are now 25s. higher for 10*l.* paid shares and 10s. on the new ones. Cape are 10s. lower; the returns of this company for September were 1043 tons in all, and the last sale was at 11s. 5½d. per unit. Cape are at 27⅞. English and Australian, 17s. 6d.; New Quebrada, 30s.; Rio Tinto 5 per cent., 59⅛; Yorke Peninsula, 2s. 6d. to 3s. 9d.; and ditto (pref.), 17s. 6d.

In home mines tin shares have been in chief request, owing to a further rise of 2*l.* in the standard. The opinion is gaining ground that tin will lead the recovery in the metal trades, and if there was more confidence in the accounts of the cost-book mines their shares would rise a good deal. Among tin mines the Killifreth has often been referred to as one of the most promising investments, and it is now expected to take a front place. In regard to the East Roman Gravels, late West Tankerville, it is not probable the shares are being freely subscribed for, owing to the weakness in all lead shares, but things will no doubt improve, when there would be more inducement to take them. Glasgow Caradon are neglected at 1; Bamfylde are at ¼; Bodidris, 1; Browngelly, 1½; Clementina, 1¼; Combmartin, 4s.; Devon Consols, ½ to 1; Great Laxey, 15 to 16; Great Wheal Eleanor, ⅜; North Laxey, ¼; Paracomb, ¼; St. Patrick, ⅛.

In shares of gold and silver mines Richmond are now dealt in ex div., and improved at 10⅜ to 10⅝, cum div., after the meeting yesterday, at which Mr. Probert's reply which had been issued in regard to the charges of the late committee of inspection was considered satisfactory, and a resolution carried to that effect, as well as approving of his management at the mines. It is to be hoped that the freedom from internal and external dissensions which is necessary to the prosperity of any company will now be attained for this one. Petangui and Santa Barbara continue in request, and the latter are higher at 30s. to 35s. There is nothing been said about Exchequer now at all, which is hardly satisfactory after its late prominence. The estimated run of the Eberhardt and Aurora is stated at 1200 tons, and bullion 6400*l.* The gold returns from Pestarena United in October have been 467 ozs., from 853½ tons treated. Almada and Tirito are at 5s. Birdseye, 1s. 6d. Colorado United, 40s. Don Pedro, 5s. Emma, 2s. Flagstaff, 7s. 6d. Frontino and Bolivia, 42s 6d. I X L., 2s. 6d. to 5s. Javali, 7s. New Zealand Kapanga, 17s. 6d. St. John del Rey, 285 to 295. South Aurora, 2s. 6d. to 5s. Tecoma, 2s. 6d. to 5s. United Mexican, 65s. Western Andes, 5.

In shares of oil companies the only alteration is a reduction of 32s. 6d. on Uphalls, on unfavourable rumours. Young's Paraffin were at one time higher, at 13½, but fell back to last week's price.

Shares of miscellaneous companies are dull. The depression in the Clyde shipbuilding trade is shown by the announcement that, along with others, the Lindon and Glasgow Engineering and Iron Shipbuilding Company have just decided to reduce their working hours from 51 to 45 hours per week. Hopkins, Gilkes, and Co. are 10¾ dis.; Milner's Safe, 9 to 9½; New Sombrero Phosphate, 10½; Native Guano, 75s.; Palmer's Shipbuilding, B. 13¼ dis.; United Limmer, 35s.; Val de Travers Paving, 90s. In wagon companies' shares Scottish are reduced 5s., at 10¼. Bristol and South Wales are at 7½; Gloucester, 9; and Swansea, 25s. In chemical companies shares are more offered, perhaps owing to the announcement of the stoppage of a large firm of chemical merchants. Langdale's at 37s. 6d.; Lawe's, 8½ to 8¾; Newcastle, 41s. 3d.; and Northern Agricultural, 9½ to 10½.

ANTIOQUIA (FRONTINO) COMPANY (Limited).—A circular has been issued satisfactorily explaining the loss at this mine in August. It appears to have been due to a falling off in the production, arising from the mill giving out and the delay in getting it repaired, on account of holidays. It has since been put right, and there is now a thorough improvement in the duty.

MINING IN FLINTSHIRE.—The discovery at Prince Patrick Mine continues very rich, and is likely to prove to be one of the largest deposits of ore found in the district for many years. The galena assays 85 per cent., and the first sale from the new discovery realised over 12*l.* per ton. There are large quantities of lead now on the surface towards another sampling. North Hendre is turning out well, and they have a very rich course of ore in one of their lodes. Rhyd Alun continues to produce the usual quantities of lead, and an improvement is expected in the eastern forebreast. At Victor Mine operations have been commenced on the Coed Du vein, and great results are expected therefrom. The Halkyn Tunnel is being driven at the usual speed—about 17 yards per week, but no important feed of water has yet been met with. Referring to the Pant-y-Mwyn Mine, our correspondent makes some remarks which are so surprising that it is necessary to add they are not of course obtained from our personal examination of the property. The mine is again drowned the second time this month, and it is enquired why the water fills the workings so often if the machinery is sufficient for present requirements.

The following calculations show the yield per cent. on the money invested at present prices in the shares named, based upon the last average yearly dividends being maintained:—In coal and iron companies, Andrew Knowles and Sons would yield 11½; Bolckow, Vaughan, A, 5⅝; ditto, B, 5½; C. Cammell and Co., 8½; ditto 6 per cent. (debentures), 6; ditto 5 per cent. (debentures), 5; Henry Briggs, A or B, 3; John Brown and Co., 6½; ditto 5 per cent. (pref.), 5; Parkgate, 3⅝; Staveley (A), 6⅝; ditto (B), 5; ditto (C), 6⅛; ditto (D), 5½; and ditto 5 per cent. (pref.), 4⅝. In wagon companies Birmingham would yield 9⅜; British, 8⅜; Metropolitan, 7½; Midland, 7½; North Central, 7½; Sheffield, 7½; and Yorkshire (C), 7⅞. Earle's Shipbuilding shares would yield, 7½; Great Laxey Mine, 11; Milner's Safe, 5½; and St. John del Rey Mine, 12½.

FAVERSHAM BRICKFIELDS COMPANY (Limited).—A company has been formed under this title to purchase and work brickfields of the same name situate at Uplees, near the estuary of the Thames. The property is apparently a most promising one, but the particulars given of it yet are not so explicit as to be quite satisfactory. The fields, three in number, contain a fine mild clay to the depth of 16 ft., and under that an inexhaustible bed of fine white sand. They are being laid out on an extensive scale, with first class machinery. The property is held on an unexpired lease of 21 years, and the royalty is 1s. 6d. per thousand bricks made. It would have been desirable to know how long the vendor has had it, what profits it yielded to him, and most particularly what capital he expended on it. One cannot gather what he is getting for the property besides 1200 shares. The capital is to be 20,000*l.*, in 5*l.* shares, and 40,000*l.* in 2*l.* debentures. As the share capital is proposed to be chiefly disposed of to the vendor and as a bonus to those who take debentures, it is evident no one could say these debentures were such in anything but name, without some such information as has been pointed out.

RHOSESMOR MINING COMPANY (Limited).—The proceedings at the general meeting of this company on the 30th ult. were not important. The directors' report stated nothing new had occurred at the mines. The expenditure, though reduced as low as possible, had been 827*l.*, which is accounted for by the dead rates payable to some of the company's lessors, and interest on debt to bank. The deep level continues to be rapidly and successfully pushed forward by the Halkyn Mines Drainage Company, and the directors urge shareholders in this and other interested companies to support it by taking shares. The success of this company may be said to be entirely dependent on the success of the drainage scheme. The report was adopted, and the retiring directors and auditors reappointed.

GLASGOW PORT WASHINGTON IRON AND COAL COMPANY (Limited).—This company's general meeting was also uninteresting. The report and accounts were unanimously adopted, and the retiring directors and auditors reappointed. One of the directors gave a short description of his visit to their property, and expressed satisfaction at being able to report favourably on the condition of the works and the company's prospects when a revival of trade takes place.

On Contango-day (Monday) the following were the rates of continuation current:—Contangos: 3d. on Benhar Coal, 1½d. on Glasgow Caradon, 1½d. on Monkland, 1s. on Richmond. Backwardation; 6d., 3d. on Tharsis, 6d., 3d., 6d. on Uphall Oil, 6d., 9d., 1s. 3d. on Young's Paraffin. On comparing the making-up prices fixed to day for the shares named with those at the previous settlement, the variations thus shown to have taken place during past account are: Richmond have advanced 13s. 9d. per share, and Glasgow Port Washington, 3s. 9d.; Glasgow Caradon, Huntington, Marbella, Omoa and Cleland, and Oakbank Oil are all unaltered, while Benhar shares have declined 45s., Tharsis 11s. 3d., Monkland and Uphall each 7s. 6d., and Tharsis (new) 2s. 6d.

BETTWS-Y-COED LEAD MINE.—This property is situate in Carnorvonshire, and near to the D'Eresby Mountain, Llanwrst, and Pandora mines. The property has been favourably reported on as to its intrinsic merits by eminent mining authorities. The present management only took it up so recently as December last, but have not been idle in developing it, as it is not their intention to keep the ore under ground to make reports upon. The mine has turned out better even than they hoped for. The lode, a good one and improving with depth, has been opened upon for 600 yards in length. If lead does not go lower in price it is calculated dividends will soon be earned from the profits from stoping ground in the eastern part of the mine at the back of the deep adit. A wholesome feature in connection with the undertaking is the fact that neither the directors or managing directors are to take any fees except out of the profits. The capital is 30,000*l.*, in 1*l.* shares, and the first issue has been 20,000*l.*

BENHAR COAL COMPANY (Limited).—Owing to the directors of this company having failed to obtain assistance to enable them to meet loans which fell due on the 11th instant, and which could not be renewed, they have requested accountants to prepare a report of the position of the company, and convened a meeting for Nov. 19, when two resolutions will be submitted, one to issue new preference shares, the other for voluntary liquidation. The directors state that but for the unprecedented financial pressure this intimation would have been unnecessary, and they hope the accountants' report will enable the shareholders to place the affairs of the company on such a basis as to admit of the business being continued. In connection with the above circular an informal meeting of the leading shareholders was held yesterday to discuss the unfortunate position of affairs. It was unanimously resolved that it is the interest of all parties to carry on the works. A committee of share and debenture-holders was then appointed to meet the directors and accountants to ascertain how matters really stand. The general feeling is that a comparatively small sum will be required to tide the company over its difficulties, and that under a reconstructed board of directors a strong effort to raise the necessary funds from existing shareholders will be successful.

The Benhar is the largest purely coal undertaking in Scotland, and some particulars of its history may be of interest at present. The works, which are still going on, when in full operation can produce about 2000 tons per day, and employ over 1200 men. The collieries are in Lanarkshire and Midlothian. The company is proprietor of the estate of Duddingston, near Edinburgh, in which there is a large extent of unworked minerals. They also possess heritable property, exclusive of the minerals, the income from which has been valued at 8000*l.* a year. In this way the company is superior of Portobello. They have also oilworks at Broxburn, which are described as well constructed, and likely to be a valuable part of the business. All the collieries are stated to be working at a profit, and that a large brick work they lately took over at Portobello is paying handsomely. The company was formed in January, 1872, and in the first year paid 7 per cent. on a paid-up capital of 240,000*l.* In 1873 and 1874 dividends of 30 and 20 per cent. were paid.

About the end of 1874 an amalgamation was effected with the Niddrie Coal Company, which had only been in existence since the middle of that year, with a capital of 310,000*l.* The united capital was then fixed at 510,000*l.*, in 10*l.* shares. The last meeting was held in March, when a satisfactory balance-sheet was submitted, and a dividend of 4 per cent. declared. The total amount of loans and debenture was then about 224,000*l.* A great many of the shares are held by retired people and ladies, while bankers, coal and mineral owners, lawyers, merchants, distillers, and ministers have all invested largely in the order named. The shares are, of course, chiefly held in Scotland, the towns in which 10,000*l.* stock and upwards are held being Corstorphine, Kirkliston, Bathgate, Falkirk, Fauldhouse, Glasgow, and Edinburgh. A good many are distributed in different parts of England, while the balance of the shareholders reside in the Isle of Man, Ireland, and Hanover. The places in England where 1000*l.* stock and upwards are held are Salford, Exeter, Addingham (Yorkshire), Stockton-on-Tees, Lincoln, Chester-le-street, Manchester, Liverpool, Burnley, Colne (Lancashire), and London.

Capital. Per share.	Paid up.	Dividends. Rate per cent. per annum. Previous.	Last.	Description of shares.	Last price.
				COAL, IRON, STEEL.	
£10	£8	£7	£7†	Arniston Coal (Limited)	6¼
10	10	4	4	Benhar Coal (Limited)	22s.
100	50	22s6d‖	3s6d‖	Bolckow, Vaughan, and Co. (Lim.) A.	52¼
10	10	10	10	Cairntable Gas Coal (Limited)	7½
10	10	4s‖	April, 1876	Chillington Iron (Limited)	60s.
10	7	—	—	Clyde Coal (Limited)	7
23	20	10s‖	Dec., 1874	Ebbw Vale Steel, Iron, and Coal (Lim.)	5½
10	6	nil	nil	Fife Coal (Limited)	70s.
10	10	nil	nil	Glasgow Port Washington Iron & Coal (L)	40s.
10	10	—	—	Ditto Prepaid	40s.
10	10	—	—	Lochore and Capledrae (Limited)	45s.
10	10	nil	3	Marbella Iron Ore (Limited)	37s. 6d.
10	10	nil	nil	Monkland Iron and Coal (Limited)	30s.
10	10	5	4	Ditto Guaranteed Preference	40s.
100	100	nil	nil	Nant-y-Glo & Blaina Ironworks pref. (L)	20
6	6	nil	nil	Omoa and Cleland Iron & Coal (L. & Red.)	7s. 6d.
1	1	15	15	Scottish Australian Mining (Limited)	35s.
1	10s.	15	15	Ditto New	15s.
Stock	100	nil	nil	Shotts Iron	80
				COPPER, SULPHUR, TIN.	
4	4	—	—	Canadian Copper and Sulphur (Lim.)	8s.
10	7	77s 6d‖	35s‖	Cape Copper (Limited)	28
1	1	7½	2½	Glasgow Caradon Copper Mining (Lim.)	30s.
1	15s.	7½	2½	Ditto New	13s. 6d.
10	9¾	nil	nil	Huntington Copper and Sulphur (Lim.)	10s.
4	4	—	—	Panmicillo Copper (Limited)	20s.
10	10	6†	6†	Rio Tinto (Limited)	50s.
20	20	7	7	Ditto, 7 per cent. Mortgage Bonds	14/ 3s 9d
100	100	5	5	Do. 5 p.ct. Mor. Deb. (Sp.Con. Bds.)	61
10	10	22½	20	Tharsis Copper and Sulphur (Limited)	21/ 3s 9d
10	7	22½	20	Ditto New	13¾
1	1	—	—	Yorke Peninsula Mining (Limited)	5s.
1	1	—	—	Ditto, 15 per cent. Guaranteed Pref.	17s. 6d.
				GOLD, SILVER.	
1	1	—	—	Australian Mines Investment (Limited)	8s.
5	5	7s. 6d‖	7s. 6d‖	Richmond Mining (Limited)	9¾
				OIL.	
10	7	6	15	Dalmeny Oil (Limited)	8¾
1	1	7½	25	Oakbank Oil (Limited)	40s.
1	5s.	—	25	Ditto	11s.
10	10	7½	2	Uphall Mineral Oil (Limited) "A"	97s. 6d.
10	10	—	—	Ditto "B" Deferred	10
10	10	—	—	West Calder Oil (Limited)	18s.
10	8¾	17½	17½	Young's Paraffin Light & Mineral Oil (L)	12¾
				MISCELLANEOUS.	
50	25	5	6	London and Glasgow Engineering & Iron Shipbuilding (Limited)	22½
7	7	15	10	Phospho Guano (Limited)	8¾
10	10	6	6	Scottish Wagon (Limited)	10¼
10	4	6	6	Ditto New	80s.

† Interim. ‖ Per share. * For six months of 1878.

NOTE.—The above lists of mines and auxiliary associations are as full as can be ascertained, Scotch companies only being inserted, or those in which Scotch investors are interested. In the event of any being omitted, and parties desiring a quotation for them and such information as can be ascertained from time to time to be inserted in these lists, they will be good enough to communicate the name of the company, with any other particulars as full as possible.

J. GRANT MACLEAN, Stock and Share Broker.

Post Office Buildings, Stirling, November 14.

COUNTERBALANCED COAL TIPS.—In ordinary hydraulic coal tips, as at present constructed, the return weight, after the lifting has taken place and the load been delivered, is counterbalanced by means of weights and chains, or other equally cumbersome arrangements, or else the return weight is altogether lost. Now, according to the invention of Mr. GEORGE PARFITT, of the Tubal Cain Works, Cardiff, he dispenses with these weights or chains, and fits an auxiliary counterbalance ram or rams to the lifting ram or rams, which will draw in water on the up-stroke, and on returning will deliver that water into the mains, thus acting as a counterbalance, and at the same time keeing up the pressure in the main. Or he may fit two rams, both acting as lifting rams on the up-stroke (in lieu of one only, and the other as a pump, as in the previously described case), and on the down-stroke the larger or main lifting ram would be caused to force back into the main, while the water from the smaller ram would be allowed to escape. One example of the way in which the invention may be carried into effect will suffice. Suppose the load up to be 24 tons, and the weight back 14 tons. Now, usually this return is counterbalanced, as before stated, by weights and chains, which are cumbersome, or the return power is lost. According to his invention he fixes an auxiliary ram C, or rams (as shown in dotted lines), which will draw in water on the up-stroke, and on returning will pump that water into the mains, and so keep up the pressure. This may be applied to tips already fitted up. In the case of new ones he should fit two rams. At the first, one of sufficient size and area of ram to lift 14 tons; the other 10 tons. The water-power would be used in both on the up-stroke, but on the down-stroke the 14-ton ram would force back into the main, and the 10-ton ram water only be allowed to escape, as at present.

FOREIGN MINING AND METALLURGY.

The condition of the Belgian iron trade is still strained and depressed, the consumption of iron being very restricted. The orders recently given out by the administration of the Belgian State Railways have, however, had the effect of maintaining a certain amount of activity in the Belgian mechanical construction establishments. Belgian industrials are doing their utmost to obtain orders abroad, and the Dyle Workshops Company has secured an order for 80 tracks to be supplied to the Madrid, Saragossa, and Alicante Railway Company. MM. Piérard Freres have also secured an order for 800 tons of iron rails, weighing 50 lbs. per yard, and destined for Italy. Both these contracts are stated to have been obtained upon tolerably remunerative terms. At the same time the orders are of comparative little importance having regard to the productive resources now at the command of Belgian industrials. The John Cockerill Company alone, for instance, can now turn out 2000 tons of steel rails weekly. Two Englishmen—Mr. Bell and Mr. Forster—have been making this week an industrial tour in the Charleroi district. They have visited the Thy-le-Chateau Works for the purpose of examining the Ponsard furnace. They have also visited the Marcinelle and the Montigny Ironworks, and the Châtelat Rolling Mills. The Commercial, Industrial, and Maratime Society of Antwerp has responded favourably to a request made to it by the British Iron Trade Association to obtain the free importation of pig into Belgium.

A commission appointed by the French Minister of Public Works to consider the question of the deepening of the Seine to Paris—a matter of consederable interest to the French coal trade—has concluded in favour of the construction of a direct canal from Paris to the department of the Nord. It is proposed that this canal should commence at Saint Denis or Creil, and be carried thence to the neighbourhood of Croisilles, where it would bifurcate to Anzin on the one hand and Lens on the other hand. The proposed draught of water is to be 6 ft. 8 in., and provision is be to made for the transit of boats carrying as much as 600 tons each, and built of plates in compartments. M. Chanone, engineer of mines, estimates that by this means coal could be delivered from the Nord to Paris for 1s. 10d. per ton, leaving a profit of 3s. 4d. per ton to colliery proprietors.

In the French department of the Haute-Marne the iron trade remains in much the same state; in other words, there is comparatively little business passing. Proposals are occasionally made by would-be purchasers, but they lead to so much discussion that they frequently come to nothing. Quotations show no appreciable change. In the Meurthe-et-Moselle quotations for pig are pretty well maintained at about 2*l.* 5s. 9d. per ton. In the Ardennes ordinary iron from coke-made pig is quoted at 6*l.* to 6*l.* 4s. per ton. In the Loire-et-Rhone the demand for merchants' iron appears to have become less active; the approach of winter has a tendency to check consumption. The Upper Italy Railway Company is endeavouring to secure upon all the Italian lines the adoption of a uniform system of continuous brakes. Hitherto the plant required for railways in the Dutch Indies has been submitted to inspection in the colonies themselves; a royal decree has, however, just annexed to the Department of the Colonies at La Haye a technical bureau upon which the task of inspection will in future devolve. It is stated a proposal will be made in the German Reichsrath next session for the re-establishment of an import duty on iron. On the other hand, the German journals announce the foundation of a Free Trade League, intended to combat the Protectionist tendencies which now prevail in Germany.

Metallurgical industry remaining in Belgium is in a strained and difficult state. Coal feels the influence of this, and exhibits no tendency to an increase in production. Under these circumstances Belgian colliery proprietors content themselves with a small extraction, so as to avoid an augmentation of stocks. Coal for domestic purposes has naturally become in some demand with the advance of the winter. Supplies continue to be laid in, and prices have experienced only a small advance, which seems likely to be checked, as there is a good deal of competition between Belgian coalowners themselves. The Mineral Society of St. Etienne has published in its bulletin some detailed plates of the atmospheric tube of the Hottinguer pit at Epinac. The extraction of coal is effected by means of this tube at a depth of about 2000 ft.

FOREIGN COMPETITION IN THE COAL TRADE.—A correspondent writing from Paris, states that the Commission recently appointed by the French Minister of Public Works to consider the project for opening a new canal between Paris and the coal fields of the northern districts of France, has concluded its labours. The report recommends the immediate adoption of the proposed scheme. The evidence submitted to the Commission showed that the freight of English coal from Newcastle and Cardiff is 16 frs. 50 c. per ton, but that this figure will be reduced to 10 frs. 50 c. by the projected deepening of the Seine, already fully decided upon. According to a competent engineer, one of the witnesses examined before the Commission, the freight by the proposed new canal will be reduced from 6 frs. 50 c., the present rate from the French coal fields, to 2 frs. 21 c., besides which there will be the additional advantage in the return freight. The new canal will leave Creil or St. Denis for Croisille, where it would branch off to Anzin in one direction and to Lens in another. The proposed depth of the new canal is two metres, and the locks will be 5·20 metres in breadth, so as to hold a tug-boat and a barge of 600 tons burthen. When the deepening of the Seine has been completed vessels of 800 tons instead of 400 tons burden will be able to travel to Paris.

NEW RETORT STEAM-BOILER.—In connection with the generation of steam for working engines an improved arrangement has been invented by Mr. B. SAWDON, of Kingston-upon-Hull, which consists in fitting within a retort which can be arranged in an ordinary fire-place or grate an inner vessel, into which water in small quantities can be forced and spread by means of a pump, and be there converted into steam, to be withdrawn and used as the motive-power agent in an engine. The inner vessel, which may be loose or attached to the front of the retort in any suitable manner, has pipes for leading the water into the vessel, and also for leading the steam away from it; it has also a gauge and valves for regulating the pressure, and for preventing an accumulation of gases that may tend to obstruct the proper conversion of water into steam, which by this invention is effected instantaneously on the water coming into contact with the heated vessel. In some cases he fits a reservoir to the steam-pipe to enable a supply of steam to be reserved should such be required, but he prefers to make and use the steam only as it is needed. He does not restrict himself to the size or shape of the retort, nor of the inner vessel, although he purposes making them of a size suitable for driving small engines, and as substitute for the present gas engine, which not only create a nuisance by the smell of unconsumed gas and of burnt gas, but are objected to from the explosive nature of the gas itself. The improved retort may be of any shape or thickness, of cast, or malleable, or of wrought iron, can be set in brickwork if necessary, and its character is such that it can be removed with facility, as can also the inner vessel and pieces attached, for repairs, renewals, or otherwise. Any number of the retorts and inner vessels may be arranged in proximity, and the steam of each utilised by being put into combination for working one larger engine. By this arrangement any one or more of the apparatus can be shut off or put out of action as occasion demands.

HOLLOWAY'S OINTMENT AND PILLS.—RHEUMATIC PAINS, TIC DOLOREUX.—These diseases are unfortunately prevalent in this country, and are frequently most distressing, sometimes for years baffling all medical skill to alleviate the sufferings of the victims. In no case have Holloway's ointment and pills failed to produce a cure. The ointment exerts a peculiar and soothing influence over the nerves and muscles, relaxing spasms and subduing pain. The attack soon becomes milder and the intervals between the paroxysms longer; until they cease altogether. The pills restore the body from a weak and debilitated condition to a state of health and strength. Persons bedridden for months with rheumatic pains and swellings after using the ointment have been cured in an incredibly short period.

MECHANICAL VENTILATION OF MINES.

THE UNION ENGINEERING COMPANY (C. SCHIELE AND CO.) undertake the Construction and Erection of their Colliery Ventilation Fans, of all sizes up to the largest required quantities of air. The leading features of their system are now generally known. Some of the specialities are: The absence of necessity for costly erections in masonry and brickwork: the small space required for the Machines, and the moderate first cost of the whole.

As the Fans are in a great measure self-contained, the necessary seats and connection with Pit are of a simple and inexpensive character. They can be arranged to be placed below ground when required, and also to work on Drawing Shafts. Certain sizes are often used to assist in Furnaces, with good effect.

[Estimates and further information will be prepared on receipt of the necessary particulars].

FOR SINKING PURPOSES, and also for places where small quantities of air are needed for Ventilating purposes, a Special Fan is made, in various sizes, with small engine combined, complete, arranged for both forcing and exhausting air.

NOISELESS BLOWING FANS, for Smithy Fires, and other purposes.

TURBINE WATER-WHEELS, specially designed and adapted for use in Coal Mines, for high falls of water, for the purpose of developing water power, where it is available, for use in hauling, pumping, and other works.

The Firm, having had an experience of nearly twenty-five years exclusively in the above Special Departments of Engineering, are prepared to advise on any matter affecting the application of Fans or Water Power in Collieries or elsewhere.

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(SOLE PROPRIETORS AND MAKERS OF SCHIELE'S LATEST PATENTS),
2. CLARENCE BUILDINGS. BOOTH STREET. MANCHESTER.

FOREIGN MINES.

PONTIGBAUD.—Nov. 2: Roure Mine: The sinking of the engine-shaft below the 175 metre level goes on regularly, and the rock is a little more favourable for progress. The 175 north is in a lode 2 ft. wide, composed of quartz spotted with ore. The same level south is in a large lode, also composed of jointy quartz and decomposed country rock, and producing occasionally stones of grey stuff. The 150 south is unproductive. The winze in the 150 north produces a little saving work. The winze below the 100 cross cut west, over the 150 rise, is in stiff ground. The 100 cross cut east continues in hard ground. The 80 south on Virginie's lode yields a little pretty good quality ore, and opening tribute ground. The same level north yields ¾ ton per current metre. The 60 in the same direction has been very variable in yield, and at the present time is unproductive. The 40 north yields ½ ton of ore per current metre. The same level south of Brugere's winze yields some pretty good ore stuff for a width of 1 ft. The 40 cross-cut, east of mill shaft, proceeds favourably. The ends of the 20, north and south on the eastern part of the lode, are temporarily suspended to hole a winze over the 40 north for ventilation, which is urgent. The adit, north of Virginie's workings, continues to open ore ground of low value. At Miooche there is nothing new to report, the tribute pitches being without change in value.

La Brousse: The 140 metre level, south of Basset's shaft, continues in unproductive ground. The undercutting of the lode in the 120 south continues to yield 1½ ton of ore per current metre. The rise in the back of the 100 south is unproductive. In the 80 south we have put out a cross cut eastward to prove the lode to its full width, which at this point is 2 metres of soft ferruginous rock, yielding no ore. The 60 south, on the eastern part, has entered easier rock, but unproductive. The new engine-shaft is completed to the 120, and set to sink below. The rise underneath, from the 140, is in stiff ground. The driving of the new adit west proceeds favourably.—Pranal: The 110 is again dry, and the ends set to drive north and south; the north end lets out a large quantity of water and gas, which makes the driving rather difficult. The 90 is improved in appearance, and we hope ere long to enter the ore ground ahead. The same level south yields ⅓ ton of ore per current metre. We have set to rise in the back of this level, in the eastern portion of the lode, where it is worth ½ ton of ore per current metre. The 70 south is unproductive. The same level north yields ¾ ton of ore per current metre. The winze in the bottom of the 50 north has been holed to the 70 rise in a good lode, and the driving of the 50 resumed. The 50 south yields ¾ ton of ore per current metre.—Lavergne: The lode in the adit level is 1½ metre wide, composed of quartz, and spotted with ore in places.—Villelongue: We have cut into the lode 3 metres in the adit south, where it is composed of hard gneiss, quartz, iron pyrites, and blende, spotted with lead ore, altogether not presenting a very kindly appearance.—Surface: During the month we have finished our out-door work for the winter. Our dressing operations have gone on regularly, and the samplings have amounted to 277 tons.

LINARES.—Oct. 30: In the 120, east of Santa Tomas, there is a large lode, and easy for opening, but does not contain any ore. The lode in the 135, east of Santa Tomas, is wide and strong, but of no value. In the 135, west of Santa Tomas, there is no improvement. The lode in the 100, east of Warne's, has fallen off a little in value, but still worth ¾ ton per fathom. In the 115, east of Warne's, the lode has somewhat improved in appearance, but does not contain any ore. The lode in the 115, west of Warnes, is of great width, with a good branch of lead on the north wall, valued at 1 ton per fathom. In the 120, west of Peill's, there is a very strong and regular lode, yielding 1 ton per fathom. The lode in the 90, west of Peill's, is well defined and continuous, worth 1 ton per fathom. The 120, east of Peill's, although much less productive than it was, is still opening valuable ground. In the 105, east of Peill's, the lode is divided at the present point; the main part appears to be standing to the north, but this will be proved forthwith; valued at 1 ton per fathom. No. 225 winze, below the 90, is down to the 105, and will be holed by the end reaching it shortly; lode worth 1 ton per fm. No. 227 winze, below the 105, is going down in a very fine lode, yielding 3 tons per fathom. In Peill's engine-shaft, below the 120, very good progress is being made in this sink. The weekly weighings of ore were kept up very regularly during the past month, and the stopes are yielding fairly well at present. The ordinary surface works are kept on steadily, and the machinery is in good condition. We estimate the raisings for November at 250 tons.—Quinientos: The lode in the 100, east of Taylor's, is large and easy. The 90, east of Taylor's, is being driven north, where we expect to find the main part of the lode. In the 80, east of San Carlos, there is no improvement. Gomez winze, below the 90, is holed to the 100; lode worth 1 ton per fathom. We estimate the raisings for November at 100 tons.

ALAMILLOS.—Oct. 30: In the 20, west of San Felipe shaft, the lode is divided into unproductive branches. The lode in the 100, east of Taylor's, is comparatively soft, and yields good stones of ore. In the 100, west of Taylor's, the lode is very wide, with a good branch of ore on its north part, worth ½ ton per fathom. The lode in the 85, west of San Adriano, is large, and spotted with ore. The lode in the 60, east of San Victor, is of great width; the men are now opening on the north side, whith contains stones of ore. In the 70, east of San Victor, the lode is small, and at present much harder than it was. The 70, west of San Victor, has changed unfavourably in the past fortnight. In the 40, east of San Victor cross-cut, there is a small and regular lode, with good stones of ore. The lode in the 30, east of Air shaft, has much improved in the past few days, now worth 1 ton per fathom. From the 30, west of Air shaft, the men are driving south to prove the lode. In the 40, south of San Carlos, no lode has yet been met with. In the 40, east of Judd's, the driving is temporarily suspended—lode worth ½ ton per fm. The lode in the 50, east of Judd's, is small and compact, and much reduced in value, yielding 1 ton per fathom. In the 70, west of Judd's, the ground is hard for driving, and the lode small and poor. In the sinking of Taylor's engine-shaft below the 100 the men were hindered during the fixing of the tackle and other timberwork. The lode in Hidalgo's winze, below the 85, is large and strong, but reduced in value, worth ½ ton per fathom. In Ortez' winze, below the 40, there is no improvement in this sink. The lode in Pascual's winze, below the 20, contains stones of ore, but not enough to value. In Gigante's winze, below the 60, there is a very wide and strong lode, with good lumps of ore, worth ½ ton per fathom. Carmona's winze, below the 85, has greatly improved, and at the same time easy for working, yielding 2 tons per fathom. Ciro's winze, below the 30, is deep enough for the 40 fathom level, and will be holed in a few days; the lode is valued at 2 tons per fathom. The usual quantity of ore was returned in the past month, and the stopes have not undergone any change of importance. The works at surface are kept on with perfect regularity, and the machinery is in good order. We estimate the raisings for November at 175 tons.

FORTUNA.—Oct. 30: Canada Incosa: The lode in the 120 fm. level, west of O'Shea's, continues large and open, and is yielding fine lumps of lead ore; worth ¾ ton per fathom. In the 50, west of Abercrombie's, the lode is wider, and looks more promising than for some time past, yielding ½ ton per fathom. The lode in the 60, west of Abercrombie's, is split into worthless branches. In the 50, east of Abercrombie's, there is a compact and regular lode, and the ground is easy for driving through; valued at ⅔ ton per fathom. The lode in the 70, west of San Pedro, has improved, and now looks very promising; worth 1 ton per fathom. In the 80, west of San Pedro, the lode is large, and is composed of quartz, carbonate of lime, and lead ore; yielding ½ ton per fathom. The 80, east of San Pedro, is similar in character to the last-named end, and producing ¾ ton per fathom. The 70, east of San Pedro, continues to open productive ground; worth 1 ton per fathom. In the 120, east of O'Shea's, the lode is large and thickly spotted with lead ore; the ground is very hard. The 100, west of Lowndes', has changed unfavourably during the last few days. The 100, east of Lowndes', has improved in size and appearance, and will no doubt lay open a good length of ore ground, valued at 1 ton per fathom. In the 90, east of Caro's, the lode is small, and does not open out as anticipated; worth ½ ton per fathom. The lode in Congress winze, below the 60, is very regular, and good progress is being made in sinking; valued at ¾ ton per fathom. In Martinez' winze, below the 30, the lode is improving, and yields good stones of ore; worth ½ ton per fathom. The lode in Pilar's winze, below the 60, is large and of a promising appearance, producing ¾ ton per fathom. Galo's winze, below the 110, is being sunk in advance of the 120, west of O'Shea's engine-shaft; lode yielding ¾ ton per fathom.—Los Salidos: In the 145, east of Taylor's engine-shaft, there is a large lode, thickly impregnated with lead ore; worth ½ ton per fathom. The lode in the 130, east of Taylor's, is in a very hard bar of disordered ground. In the 120, east of Cox's, splendid ore ground is again being opened; valued at 4 tons per fathom. The lode in the 110, east of San Miguel, is compact and very regular; worth 1 ton per fathom. In the 80, west of Palgrave's, there is nothing of value in the present end, and the ground is very hard. The 80, east of Palgrave's, is laying open a great length of very good ore ground; worth 2 tons per fathom. In Taylor's engine shaft, below the 145, the men are working well, and making rapid progress with the sinking. The lode in Nieve's winze, below the 65, has improved, and the ground is easy for sinking, yielding 1½ ton per fathom.

For remainder of Foreign Mines, see to-day's Journal.]

SALTPETRE FROM BOLIVIA.—Bolivia is becoming a formidable rival to Peru and Chili in the production of nitrate of soda. With a coastline not exceeding 100 miles in length, while the neighbouring States of Chili and Peru between them monopolise nearly the whole of the Pacific Coast of South America. Bolivia exports more than 200,000 soles, or about 12,000 tons, of nitrate a month from the port of Antofogasta—a quantity equal to that now exported from Iquique in the same period. Greater facilities for shipment exist at Antofogasta than at Iquique, Lima, Callao, or Valparaiso, and the Bolivian port is becoming a favourite with foreign shipping. The action of the Peruvian Government in endeavouring to maintain a monopoly of the guano and nitrate of soda trade is likery to result in still gerater competition in Bolivia.

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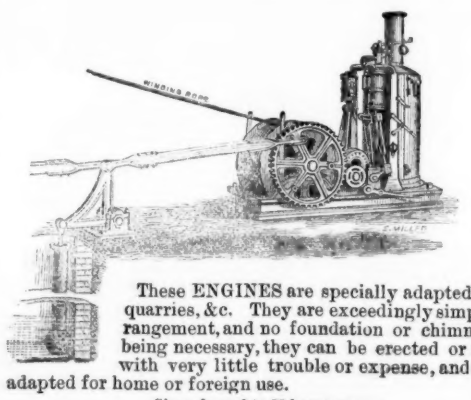

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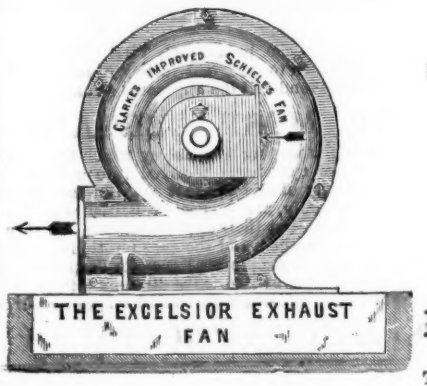

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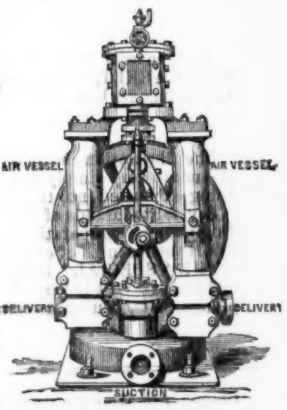

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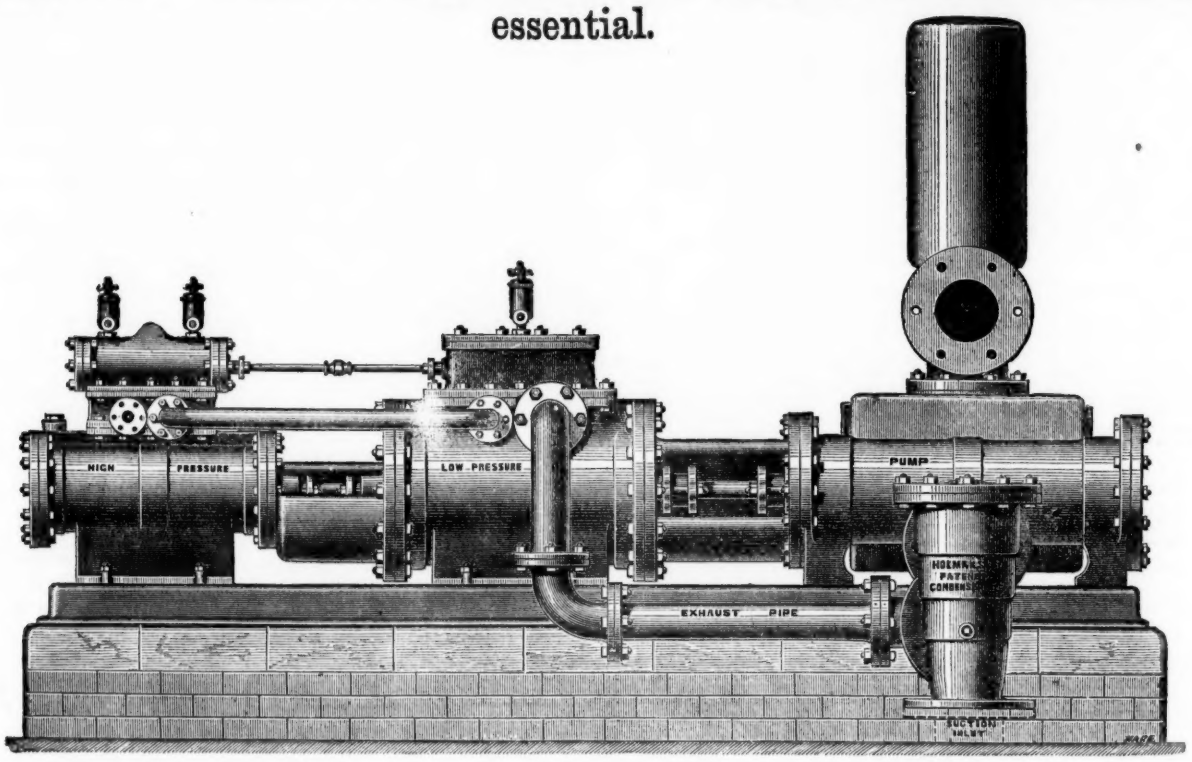
For use in Mines, Water Works, Sewage Works, and all purposes where Economy of Fuel is essential.



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THE SIMPLEST AND MOST CERTAIN IN ACTION.

The illustration shows an extension of the principle of this Pump to a Compound Steam Pumping Engine, by which the economical advantages resulting from the expansion and condensation of steam are very simply and effectively obtained. The steam after leaving the high-pressure cylinder is received into and expanded in the low-pressure cylinder, and is thus used twice over before being exhausted into the condenser or atmosphere. The Engine combines simplicity, certainty of action, great compactness, fewness of parts, and consequent reduction in wear and tear.

Several thousands of the "Special" Steam Pumping Engines, with high-pressure cylinders only, are in use in British and Foreign Mines, Water Works, &c.,—and for confined situations, or where Engines of a comparatively small size only are necessary, they will still meet all requirements—but their application will be very largely increased, since it has been found practicable to embrace the important features of expanding and condensing the steam, so that increased power may be obtained, and the consumption of fuel greatly economised.

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SIZES AND PARTICULARS.

Diameter of High-pressure Cylinder ..... In.	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14
Ditto of Low-pressure Cylinder ..... In.	14	14	14	18	18	18	18	21	21	21	21	24	24	24	24
Ditto of Water Cylinder ..... In.	4	5	6	5	6	7	8	6	7	8	10	7	8	10	12
Length of stroke ..... In.	24	24	24	24	24	24	24	24	24	24	24	36	36	36	36
Gallons per hour approximate	3900	6100	8800	6100	8800	12,000	15,650	8,800	12,000	15,650	24,450	12,000	15,650	24,450	35,225
Diameter Suction and Delivery ..... In.	3	3½	4	3½	4	5	6	4	5	6	8	5	6	8	9
Diameter High-pressure Steam Inlet ..... In.	1½	1½	1½	1½	1½	1½	1½	2½	2½	2½	2½	2½	2½	2½	2½
Diameter Low-pressure Steam Exhaust ..... In.	1½	1½	1½	1¾	1¾	1¾	1¾	2½	2½	2½	2½	2½	2½	2½	2½
Height in feet water can be raised with 40 lbs. pressure per square inch in cylinder ..... Non-condensing...	360	330	160	360	250	184	140	360	264	202	130	360	275	175	122
Ditto ditto ditto—with Holman's Condenser...	480	307	213	480	333	245	187	480	352	269	173	480	367	234	162
Ditto ditto ditto—with Air-pump Condenser...	600	384	267	600	417	306	335	600	440	337	216	600	459	203	203

CONTINUED.

Diameter of High-pressure Cylinder ..... In.	16	16	16	16	18	18	18	18	21	21	21	24	24	24	30	30
Ditto of Low-pressure Cylinder ..... In.	28	28	28	28	32	32	32	32	36	36	36	42	42	42	52	52
Ditto of Water Cylinder ..... In.	8	10	12	14	8	10	12	14	10	12	14	10	12	14	12	14
Length of stroke ..... In.	36	36	36	36	48	48	48	48	48	48	48	48	48	48	48	48
Gallons per hour approximate	15,650	24,450	35,225	47,950	13,650	24,450	35,225	47,950	24,450	35,225	47,950	24,450	35,225	47,050	35,225	47,950
Diameter Suction and Delivery ..... In.	6	8	9	10	6	8	9	10	8	9	10	8	9	10	9	10
Diameter High-pressure Steam Inlet ..... In.	2½	2½	2½	2½	3	3	3	3	3½	3½	3½	4	4	4	5½	5½
Diameter Low-pressure Steam Exhaust ..... In.	3	2	3	3	3½	3½	3½	3½	4	4	4	5	5	5	6½	6½
Height in feet water can be raised with 40 lbs. pressure per square inch in cylinder ..... Non-condensing..	360	230	160	118	456	292	202	149	397	276	202	518	360	264	562	413
Ditto ditto ditto—with Holman's Condenser...	480	307	213	154	603	389	269	198	528	363	269	691	480	352	750	550
Ditto ditto ditto—with Air-pump Condenser...	600	384	267	191	750	486	337	248	660	450	337	864	600	440	937	689

PRICES GIVEN ON RECEIPT OF REQUIREMENTS.

Any number of these Engines can be placed side by side, to work in conjunction or separately as desired, thereby multiplying the work of one Pump to any extent.

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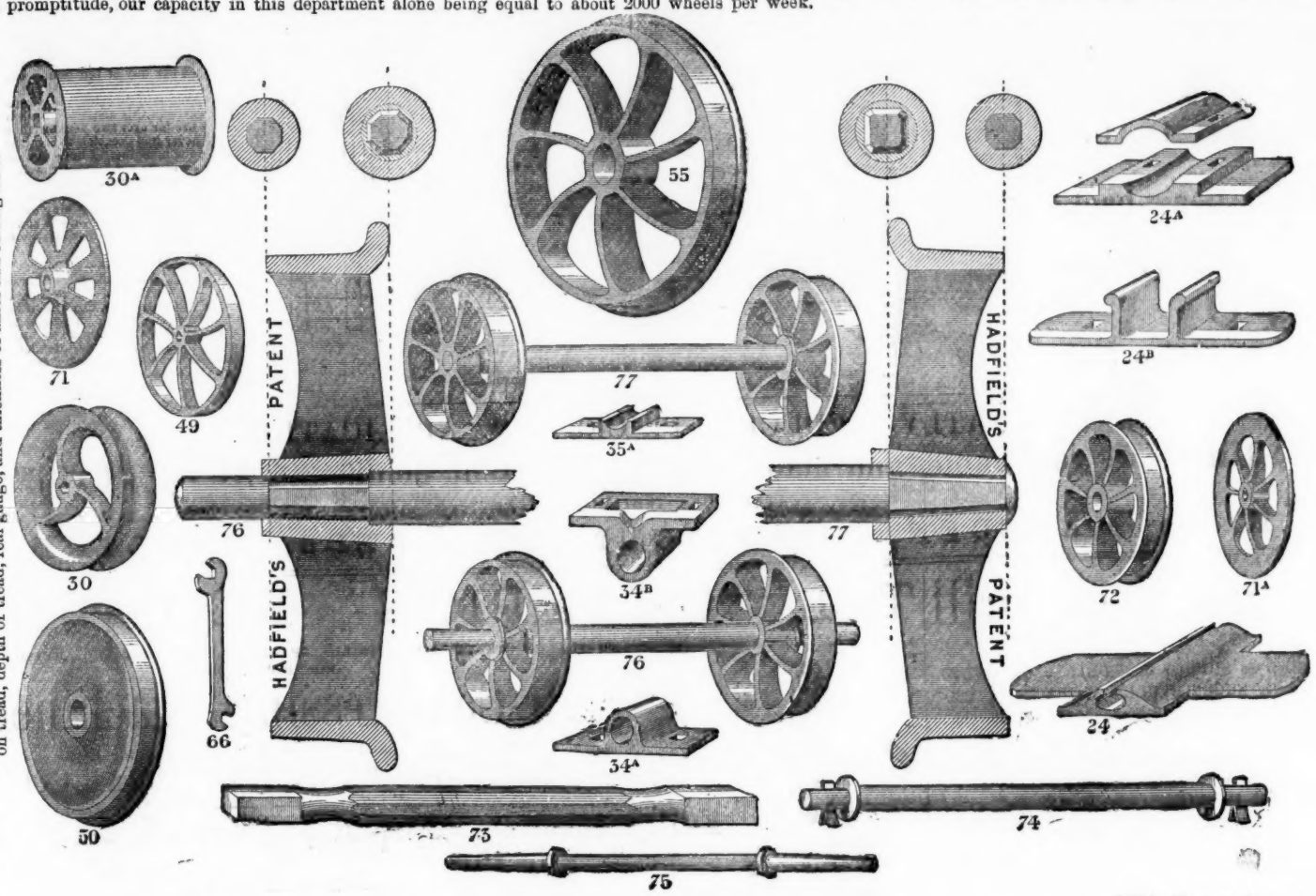
HADFIELD'S CRUCIBLE STEEL WHEELS.

One of our departments is specially adapted for the manufacture of these Wheels (as shown below), for Collieries, Ironstone Mines, Slate Quarries, Ironworks, Lead Mines, &c., &c. We have made, and are now making, many HUNDRED THOUSANDS; and having Patented a New Method of Fitting Wheels upon axles, being cheap, effective, and expeditious, we can execute orders entrusted to us with promptitude, our capacity in this department alone being equal to about 2000 wheels per week.

N.B.—Prices per Set of Wheels and Axles, fitted complete, forwarded on receipt of diameter of wheel on tread, depth of tread, real gauge, and thickness of axles and rolling load.



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HADFIELD'S PATENT METHOD OF FITTING WHEELS UPON AXLES.

The advantages of the above system are that the Wheels being forced upon a Taper Square-ended Axle, by Machinery, and then riveted (the machine securing truth), it is impossible that they can come loose or get within gauge. They are very heaply fitted on, and run exceedingly true.

We construct the Arms of wheels upon the curved principle (as shown in the drawings above), consequently the shrinkage or cooling of the Castings is not interfered with, thus securing the greatest advantages of our very strong material.

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We would also draw special attention to our INCLINE PULLEYS and CAGE GUIDES, the adoption of which will prove highly advantageous.

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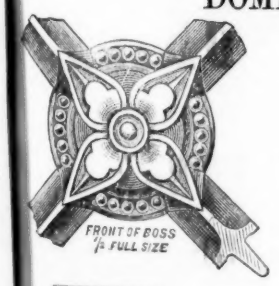
DOME AND OTHER ROOF LIGHTS, FLOOR AND PAVEMENT LIGHTS, ETC.



GREAT BRITAIN,
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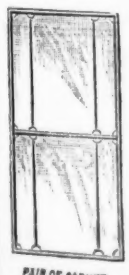
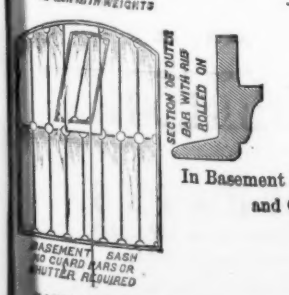


Private Houses,
Parsonage Houses,
Farm Houses,
Churches,
Chapels,
Schools,

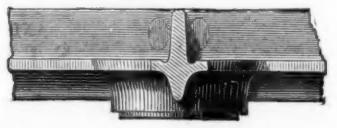
ILLUSTRATED CATALOGUES ON APPLICATION.

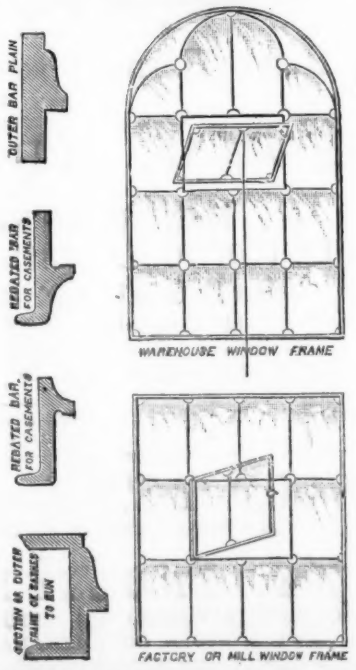


In Basement Storeys and Exposed Positions Shutters and Guard Bars are dispensed with.

HOME AND

PATENTED IN




OUTER BAR PLAIN
REBATED BAR FOR CASEMENTS
WAREHOUSE WINDOW FRAME
REBATED BAR FOR CASEMENTS
SECTION OF OUTER FRAME OR SASHES TO RUN
FACTORY OR MILL WINDOW FRAME

FRANCE,
GERMANY, AND BELGIUM.

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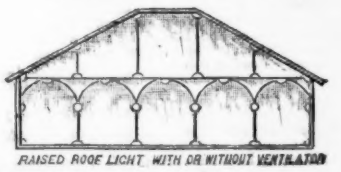
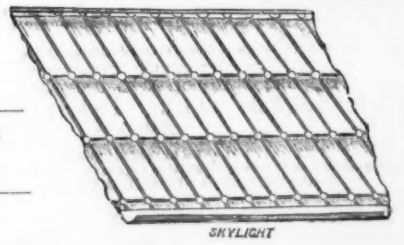
Public Buildings, Banks,
Wharves, Warehouses,
Factories, Mills,
Breweries, &c.,
Engine Houses.

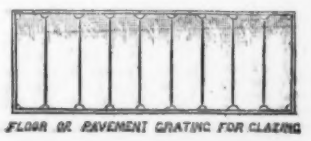
ILLUSTRATED CATALOGUES ON APPLICATION.

Security is obtained in these Skylights without Guard Bars, and with less obstruction to Light.

EXPORT.







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Stones broken equal, and Ores better, than by hand, at one-tenth the cost.

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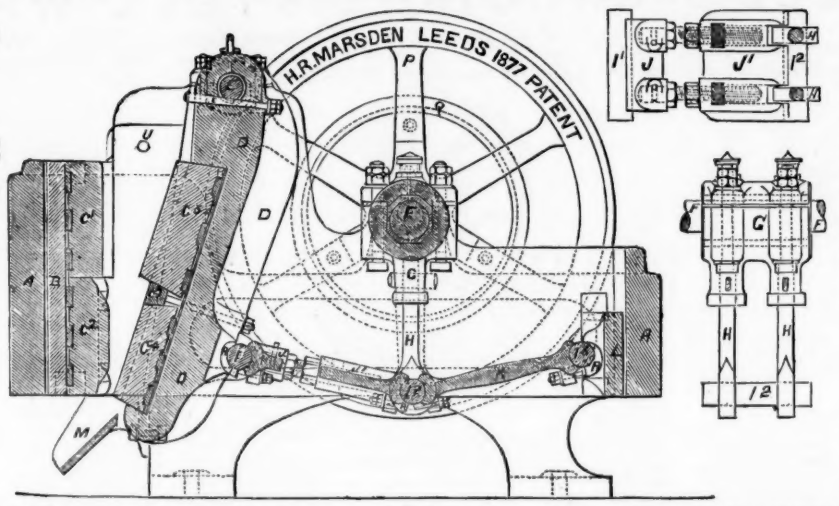
70 PRIZE MEDALS.



READ THIS—

Wharthole Lime Works, Maryport, Whitehaven, November 7, 1873.

H. E. MARSDEN, Esq., Soho Foundry, Meadow-lane, Leeds.

DEAR SIR,—The machine I have in use is one of the large size, 24 in. by 12 in. The quantity we are breaking daily with this one machine is 250 tons, the jaw being set to break to a size of 2¼ in. We have, however, frequently broken over 300 tons per day of ten hours, and on several occasions over 360 tons during the same period. The stone we break is the blue mountain limestone, and is used as a flux in the various ironworks in this district. We have now had this machine in daily use for over two years without repairs of any kind, and have never had occasion to complain of any inconvenience in using the machine. I hope the one you are now making for me may do its work equally well. The cost—INCLUDING ENGINE-POWER, COALS, ENGINEMAN, FEEDING, and all EXPENSES OF EVERY KIND—is just 3d. per ton. Should any of your friends feel desirous of seeing one of your machines at work, I shall have much pleasure in showing the one alluded to.

I am, dear Sir, yours very truly,
WILLIAM MILLER.

AND THIS—

Wharthole Lime Works, Aspatria, Cumberland, July 11th, 1878.

H. R. MARSDEN, Esq., Soho Foundry, Leeds.

DEAR SIR,—We are in receipt of your letter of 4th inst. I may just state that the stone breaker above named has been under my personal superintendence since its erection, and I have no hesitation in saying that it is as good now as it was five years ago.

I am, dear Sir, yours faithfully,
FRANCIS GOULD.

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ALL BEARINGS are renewable, and made of H.R.M.'s Patent Compound ANTIFRICTION METAL.

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In ordinary ends two machines may be worked together, and at a proportionately increased speed. They are strong, light, and simple, easily worked, and adapted for ends and stopes, and the sinking of winzes and shafts.

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WEBSTER & HORSFALL,

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SOLE MANUFACTURERS of the HOMOGENEOUS WIRE for the ATLANTIC CABLES of 1865 and 1866.

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PARIS EXHIBITION, 1878.

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A SILVER MEDAL,

FOR

IRON AND WOOD REVOLVING SHUTTERS,

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